1.5.3 Site Reclamation Requirements

The Mining and Mineral Policy Act of 1970 (MMPA) mandates federal agencies to ensure that closure and reclamation of mine operations are completed in an environmentally responsible manner. The MMPA states that the federal government should promote the following:

> "...development of methods for the disposal, control, and reclamation of mineral waste products, and the reclamation of mined lands, so as to lessen any adverse impact of mineral extraction and processing upon the physical environment that may result from mining or mineral activities."

The BLM's long-term reclamation goals are to shape, stabilize, revegetate, or otherwise treat disturbed areas in order to provide a self sustaining, safe, and stable condition providing productive use of the land, which conforms to the approved land use plan for the area. The BLM's long-term goals also include management of any discharges from process components. The short-term reclamation goals are to stabilize disturbed areas and to protect both disturbed and adjacent undisturbed areas from unnecessary or undue degradation. Relevant BLM policy and standards for reclamation are set forth in the BLM Solid Minerals Reclamation Handbook (BLM Manual Handbook H-3042-1), which provides consistent reclamation guidelines for all solid non-coal mineral activities conducted under the authority of the BLM Minerals Regulations in Title 43 CFR 3809 (BLM 1992). The BLM has reviewed the site reclamation portions of the Plan to ensure that the Project would meet BLM reclamation standards and goals. The Project would also be required to obtain a reclamation permit from, and meet the reclamation standards of, the State of Nevada Department of Conservation and Natural Resources, Nevada Division of Environmental Protection (NDEP), Bureau of Mining Regulation and Reclamation (BMRR).

1.5.4 Local Land Use Planning and Policy

The Eureka County 1973 Master Plan, updated in 2000 and again in 2010, contains a description of land uses, restrictions on development, and recommendations for future land use planning. The Eureka County Master Plan 2010 included an Economic Development Element which incorporated recommendations for increased land use planning that expands and diversifies the County's economy. The Natural Resources and Federal or State Land Use Element was developed and included into the **Master** Plan in response to Nevada Senate Bill **(SB)** 40, which was passed in 1983, which directs counties to develop plans and strategies for resources that occur within lands managed by federal and state agencies. Policies within the Eureka County Master Plan promote the expansion of mining operations/areas. **Some elements of the Proposed Action would be in conformance with Eureka County plans and policies while other elements of the proposed mine could prove inconsistent with these plans and policies. Appendix A outlines these inconsistencies between the Project and the Eureka County Master Plan. The BLM acknowledges that EML would have to comply with any applicable Eureka County codes.**

The Natural Resources and Federal or State Land Use Element is an executable policy for natural resource management and land use on federal and state administered lands in Eureka County. This element is designed to accomplish the following: 1) protect the human and natural environment of Eureka County; 2) facilitate federal agency efforts to resolve inconsistencies between federal land use decisions and County policy; 3) enable federal and state agency officials to coordinate their efforts with Eureka County; and 4) provide strategies, procedures, and policies for progressive land and resource management (Eureka County 2010).

1.6 Authorizing Actions

Scoping process information and subsequent discussions with various agencies have identified certain authorizing actions as required, or potentially required, prior to construction or operation of the Project. A list of these authorizing actions organized by agency is provided in Table 1.6-1.

Table 1.6-1: Summary of Environmental Permits and Approvals Required for the Project

Permit/Approval	Granting Agency	Permit Number	Date Issued	Status
Plan of Operations	USDOI, BLM	**n/a**	**n/a**	**Revised Plan of Operations submitted July 2012.**
Reclamation Bond Determination	USDOI, BLM and Nevada Department of Conservation and Natural Resources, Division of Environmental Protection, Bureau of Mining Regulation and Reclamation	**n/a**	**n/a**	**Revised Reclamation Plan, reclamation cost estimate, and permit application submitted July 2012.**
Right-of-Way	USDOI, BLM	**n/a**	**n/a**	**Revised Plan of Development and application for ROW grant submitted July 2012.**
Utility Environmental Protection Act Permit	Nevada Public Utilities Commission	**n/a**	**n/a**	**Application submitted to Nevada Public Utilities Commission in February 2008 and assigned Docket # 08-01016).**
Permit to Operate (Air Quality)	Nevada Department of Conservation and Natural Resources, Division of Environmental Protection, Bureau of Air Pollution Control	**AP 1061-2469**	**May 29, 2012**	**n/a**

Permit/Approval	Granting Agency	Permit Number	Date Issued	Status
Water Pollution Control Permit	Nevada Department of Conservation and Natural Resources, Division of Environmental Protection, Bureau of Mining Regulation and Reclamation	**NEV 2008106**	**n/a**	**Draft permit released for internal review in June 2012.**
Permit for Reclamation	Nevada Department of Conservation and Natural Resources, Division of Environmental Protection, Bureau of Mining Regulation and Reclamation	**n/a**	**n/a**	**Revised Reclamation Plan, reclamation cost estimate, and permit application submitted July 2012.**
Permit to Appropriate Water	Nevada Department of Conservation and Natural Resources, Division of Water Resources	**Numerous permit numbers**	**Nevada State Engineer Ruling #6127 issued June 15, 2011.**	**n/a**
Industrial Artificial Pond Permits	Nevada Department of Wildlife	**n/a**	**n/a**	**Need for permit pending a NDOW determination of the potential for tailings water to be toxic to wildlife.**
Solid Waste Class III Landfill Waiver	Nevada Department of Conservation and Natural Resources, Division of Environmental Protection, Bureau of Waste Management	**n/a**	**n/a**	**Application submitted in August 2012.**
Septic Treatment Permit	Nevada Department of Conservation and Natural Resources, Division of Environmental Protection, Bureau of Water Pollution Control	**n/a**	**n/a**	**Application would be developed as infrastructure design is finalized and issuance of ROD allows site disturbance to conduct percolation tests.**
Drinking Water Supply	Nevada Department of Conservation and Natural Resources, Division of Environmental Protection, Bureau of Safe Drinking Water	**n/a**	**n/a**	**Application to be submitted upon completion of potable water system design in late 2012.**

Permit/Approval	Granting Agency	Permit Number	Date Issued	Status
General Discharge Permit (Storm Water)	Nevada Department of Conservation and Natural Resources, Division of Environmental Protection, Bureau of Water Pollution Control	**n/a**	**n/a**	**An extension of the previous approval of the jurisdictional survey conducted in 2007 would negate the need for this permit due to the absence of Waters of the U.S.**
Powerline Rerouting (Right-of-Way Amendment)	USDOI, BLM	**n/a**	**n/a**	**This permit would not be necessary until Year 34 of the Project.**
Explosive Permit	Bureau of Alcohol, Tobacco, Firearms, Explosives	**n/a**	**n/a**	**Permit application was submitted in June 2012.**
Hazardous Materials Storage Permit	State of Nevada, Fire Marshal Division	**n/a**	**n/a**	**Permit application would be developed after details of material storage are finalized, anticipated in late 2013.**
Hazardous Waste Identification Number	U.S. Environmental Protection Agency	**Generator ID # NVR000081349**	**July 18, 2006**	**n/a**
Encroachment Permit	Nevada Department of Transportation, District III	**n/a**	**n/a**	**Permit application to be developed after design of additional safety lanes is completed, anticipated to be in 2012.**
Liquefied Petroleum Gas License	Nevada Board of the Regulation of Liquefied Petroleum Gas	**n/a**	**n/a**	**Permit application would be developed after ROD issuance to allow site surface disturbance to complete compaction tests.**
Radioactive Material License[1]	Nevada Bureau of Health Protection Services	**n/a**	**n/a**	**Permit application would be developed after selection of specific sensors to be used in the process, anticipated to be in 2013.**
Permit to Construct Tailings Impoundments	Nevada Department of Conservation and Natural Resources, Division of Water Resources	**J-623 and J-653**	**October 25, 2010**	**n/a**

Permit/Approval	Granting Agency	Permit Number	Date Issued	Status
Permit to Operate	Nevada State Minerals Commission, Division of Minerals	n/a	n/a	**Registration is required within 30 days of the start of operations, after which the Permit to Operate would be issued.**

[1] A radioactive material license may be required if nuclear flow and mass measuring devices are used in the mill and ore reclaim tunnels.

1.7 Environmental Review Process

A Project Scoping Summary documents activities conducted during the scoping process. The summary addresses the issues and concerns identified by the public during the scoping process. The Scoping Summary outlines the key issues identified during scoping and that the BLM deems to be necessary for analysis in the EIS, as well as those concerns not considered critical effects of the Proposed Action. The Scoping Summary is on file and available for review during normal business hours at the BLM's MLFO.

A Notice of Intent (NOI) to prepare this EIS was published in the Federal Register (FR) on March 2, 2007. The NOI invited scoping comments to be sent to the BLM through April 6, 2007. Also on March 2, 2007, copies of a news release entitled "Notice of Intent to Prepare an Environmental Impact Statement to Analyze the Proposed Action for the Mount Hope Project" were submitted to three northern Nevada newspapers (Humboldt Sun in Winnemucca, Battle Mountain Bugle in Battle Mountain, and the Elko Daily Free Press in Elko, Nevada) and to major interest groups. Public scoping meetings for the Project were held on March 27, 2007, and March 28, 2007.

The meeting on March 27, 2007, was held in Eureka, Nevada, at the Eureka Opera House. A total of five members of the public attended this meeting, and no written comments were received.

The meeting on March 28, 2007, was held in Battle Mountain, Nevada, at the BLM MLFO. A total of 30 members of the public attended this meeting, and one written comment was provided.

Five additional comment letters were received via mail or email during the public scoping period, and three letters were received in July 2007 after the close of the scoping comment period.

Comment letters received during and after the public scoping period have been included in the Scoping Summary and follow-up summaries, which are on file and available for review during normal business hours at the BLM's MLFO. As a result of the public scoping process, the following potential issues of concern were identified by the public:

- General Project Issues
  Scope of project
  Length of project

Size of project
Reclamation requirements
Financial guarantees
Mitigation measures
Long range plans
Protection of resources
Sustainability
Alternatives to the Project
Operational performance standards
Waste management
Cumulative impacts
Loss of ecosystem
Change in local microclimate
Land restoration

- <u>Soils and Watershed Issues</u>
  Impacts from increased erosion
  Impacts to soils from a chemical release (surface or air)
  Impacts to the quality of soils for restoring wildlife habitat and values

- <u>Livestock Grazing and Production Issues</u>
  Impacts to access for permittees
  Impacts to forage levels
  Impacts to grazing allotments
  Impacts to utilization levels
  Impacts to animal unit months

- <u>Water Resource Issues</u>
  Impacts to regional hydrology
  Impacts to surface waters from toxic effluents and residues
  Impacts to ground water chemistry
  Impacts from acid generation
  Impacts to seeps and springs
  Impacts from ground water pumping
  Impacts to future pit water quality
  Impacts from infiltration activities
  Impacts to stream flows/surface flows
  Impacts to wetlands
  Impacts to aquifer level
  Impacts of water in the pit during mining operations
  Impacts to waters of the U.S.
  Impact of ground water recharge following mine closure
  Impacts from sediment loads to streams
  Water quantity
  Use of Water
  Co-mingling of aquifers
  Impacts of catastrophic event on surface waters and ground water
  Maintenance of water lines

Impacts to water rights
Impacts to water quality
Impacts from water discharge
Impacts from mine drainage
Impacts to drainage patterns
Impacts from erosion and sedimentation
Impacts from flash floods
Flood plain recognition
Impacts from surface water, rain, or snow melt percolating through mine facilities

- <u>Air Resource Issues</u>
  Impacts to air quality
  Impact of mercury and other hazardous air pollutants emissions

- <u>Wildlife and Fisheries Resource Issues</u>
  Impacts to threatened and endangered species
  Impacts to terrestrial and aquatic wildlife and habitats
  Impacts to wildlife from hazardous materials and toxic solutions
  Impacts to breeding, nesting, and cover habitats of wildlife
  Impacts to wildlife diversity
  Impacts to native flora
  Impact of tailings facility on wildlife resources
  Impacts of pit water quality on wildlife
  Impacts to wildlife from Project-generated noise
  Reclamation impacts to wildlife
  Impact to riparian areas
  Wildlife access to water
  Impacts to wildlife from mining operations
  Impacts to hunting and wildlife viewing opportunities
  Impacts to wildlife forage areas
  Impacts to wildlife migration routes
  Impacts to springs utilized by wildlife
  Impact to bats and bat habitat

- <u>Wild Horse Issues</u>
  Impacts to wild horses from mining operations
  Impacts to wild horse foraging
  Impacts to wild horse management and allowable management levels
  Impacts to wild horse habitat and available acreages
  Impacts due to vehicular collisions with wild horses
  Impacts to herd management areas
  Impacts to free roaming behavior
  Impacts to wild horses due to water right transfers
  Impacts to water sources that wild horses use

- <u>Cultural Resources and Native American Traditional Value Issues</u>
  Impacts on Native American cultural sites
  Impacts on historic sites

Impacts on pine nut harvesting areas
Impacts to Native American Traditional Values

- Geology Issues
  Impacts of seismic activity on Project components
  Characterization of waste rock

- Visual Resource Issues
  Impacts to visual resources
  Impacts from lighting
  Impacts from color of facilities
  Impacts to line and form
  Impacts to the Pony Express Historic Trail

- Auditory Resource Issues
  Impacts from Project-related noise

- Land Use, Access, and Public Safety Issues
  Impacts to public safety
  Impacts to local traffic
  Impacts to access for the public

- Recreation and Wilderness Issues
  Impacts to wilderness resources
  Impacts of potential use of pit lake as a recreation site
  Impacts to recreation and hunting

- Socioeconomic Values and Public Services Issues
  Impacts to public services and infrastructure
  Impacts on economics in Eureka County
  Impacts on economics in State of Nevada
  Impacts from employee housing
  Impacts to the Town of Eureka

- Hazardous Material Issues
  Impacts from releases of hazardous materials

- Environmental Justice Issues
  Impacts to minority and low income populations

All of the above identified issues or concerns have been outlined in the Scoping Summary or the **Final** EIS. The scoping comments were reviewed for relevance to the Proposed Action, and those which addressed potential impacts of the Proposed Action have been included in the **Final** EIS.

2 DESCRIPTION OF ALTERNATIVES, INCLUDING THE PROPOSED ACTION

2.1 Proposed Action

The Proposed Action consists of **four** connected actions. The first action includes those activities proposed in the Plan. The remaining actions are associated with the **three** ROW Applications and PODs.

The following discussion of the Proposed Action is a summary of the Plan (EML 2006) and ROW Application and POD (EML 2008a). The Plan, ROW Application, and POD contain substantial supporting information and details that supplement this Proposed Action. As required under Section 3809.401 of 43 CFR Subpart 3809, this additional information includes the following operating plans:

- Waste Rock Management Plan (WRMP) (Rock Characterization and Handling Plan) located in Appendix 4 of the Plan;
- Spill Contingency Plan located in Appendix 11 of the Plan;
- Quality Assurance Plan located in Appendix 6 of the Plan;
- Monitoring Plan located in Appendix 12 of the Plan;
- Interim Management Plan located in Appendix 8 of the Plan; and
- Water Management Plan as discussed in Section 3.D.19 of the Plan.

Should the reader require details beyond that which is presented in the Proposed Action, the Plan, ROW Application, and the POD are available for review at the MLFO in Battle Mountain, Nevada, during normal business hours.

The Project is located on public land administered by the BLM and on private land controlled by EML. The 80-year Project would have an 18- **to 24**-month construction phase, 44 years of mining and ore processing, 30 years of reclamation, and five years of post-closure monitoring. Concurrent reclamation would not commence until after the first 15 years of the Project. The Mount Hope ore body contains approximately 966 million tons of molybdenite (molybdenum disulfide) ore that would produce approximately 1.1 billion pounds of recoverable Mo during the ore processing time frame. Approximately 1.7 billion tons of waste rock would be produced by the end of the 32-year mine life. Approximately 1.0 billion tons of tailings would be produced by the end of the 44 years of ore processing. Optimal development of the Mo deposit, to meet the market conditions and maximize Mo production, would utilize an open pit mining method and would process the mined ore using a flotation and roasting process. The location of the WRDFs, the tailings storage facilities (TSFs), and the mill and roasting facilities adjacent to the open pit would be the most efficient location to meet the needs of the Project.

The Project would consist of the following:

a) An open pit with a life of approximately 32 years and associated pit dewatering;

b) WRDFs where waste rock would be segregated according to its potential to generate acid rock drainage (ARD);

c) Milling facilities including a crusher, conveyors, semi-autogenous grinding (SAG) and ball mills, flotation circuits, concentrate dewatering, ferric chloride concentrate leach circuit, and filtration and drying circuits that would operate for approximately 44 years;

d) A molybdenite concentrate roaster and packaging plant to package the technical grade molybdenum oxide (TMO) in bags, cans or drums;

e) A ferromolybdenum (FeMo) plant for production of FeMo alloy using a metallothermic process and separate packaging plant for drums and bags;

f) Two tailings storage facilities (South TSF and North TSF) and associated tails delivery and water reclaim systems;

g) An ongoing exploration program utilizing drilling equipment, roads, pads, and sumps;

h) Low-Grade Ore (LGO) Stockpile that would feed the mill after mining ceases;

i) Water supply development with associated wells, water delivery pipelines, access roads, and power in the Kobeh Valley Well Field Area;

j) A**n approximately** 24-mile, 230-kV electric power supply line from the existing Machacek substation, with a substation and distribution system located in the Project Area;

k) A realigned section of the existing Falcon-Gondor powerline, which would require an amendment to the existing ROW at the time it is needed (near Year 36);

l) Ancillary facilities including haul, secondary, and exploration roads, a ready line (location of haulage equipment that is ready for use on a daily basis), warehouse and maintenance facilities, storm water diversions, sediment control basins, pipeline corridors, reagent and diesel storage, storage and laydown yards, ammonium nitrate silos, explosives magazines, fresh/fire suppression water storage and a process water storage pond, monitoring wells, an administration building, a security/first aid building, a helipad, a laboratory, growth media/cover stockpiles, borrow areas, mine power loop, communications equipment, hazardous waste management facilities, a Class III waivered landfill, and an area to store and treat petroleum contaminated soils;

m) Turn lane(s) on SR 278;

n) The option for the toll roasting of Mo from concentrate offsite; and

o) The closure of the TSF and the potentially acid generating (PAG) WRDF with the use of evapotranspiration **(ET)** cells to manage the long-term discharge from these facilities, as well as the physical reclamation of all Project components.

The surface disturbance associated with the proposed activities totals 8,3**55** acres and is outlined in Table 2.1-1.

Table 2.1-1: Proposed Action Surface Disturbance

Component	Public Acres	Private Acres	Total Acres
Open Pit	584	150	734
Waste Rock Disposal Facilities	2,246		2,246
Tailings Storage Facilities			3,276
North	879		
South	2,380		
Underdrain Ponds	17		
Low-grade Ore Stockpile[1]	384	33	417
Plant/Admin/Yards[2]	437	55	492
Power Supply Utility Corridor[3]	**122**	**2**	**124**
Access Road	9		9
Evapotranspiration (ET) Cells	38		38
Ancillary			1,019
Exploration	50		
Growth Media Stockpiles and Roads	488		
TSF Powerline Corridor	8		
Water Supply Development[4]	98		
Diversion Ditches[5]	113		
Interpit[6]	239	23	
Total	**8,092**	**263**	**8,355**

1 May be incorporated into the PAG WRDF, depending on economics.
2 Includes mill and maintenance buildings, crusher, conveyors, substations, vault, truck shop, warehouse, lab, roaster, yards, reclaim stockpile, laydown areas, fueling area, parking areas, fencing, and tailings and reclaim lines.
3 Includes 22 acres under the Plan and **100** acres under the POD, which includes **two** acres of private land.
4 Includes wells, water pipelines, electrical power, corridors, and associated access roads.
5 Includes sediment control ponds around WRDFs and TSF diversion channels.
6 **Surface area between the pit and the LGO stockpile and WRDFs.**

A list of anticipated mobile equipment requirements for the proposed mining operation is provided in Table 2.1-2. Vehicles and equipment may be upgraded over time as newer or more efficient technologies become developed. Other support vehicles and equipment may be used. In addition, at various times during the mine life, contract mining may be used to supplement the proposed equipment fleet, in which case equipment could be significantly different in size or number than what is listed in Table 2.1-2.

2.1.1 Open Pit Mining Methods

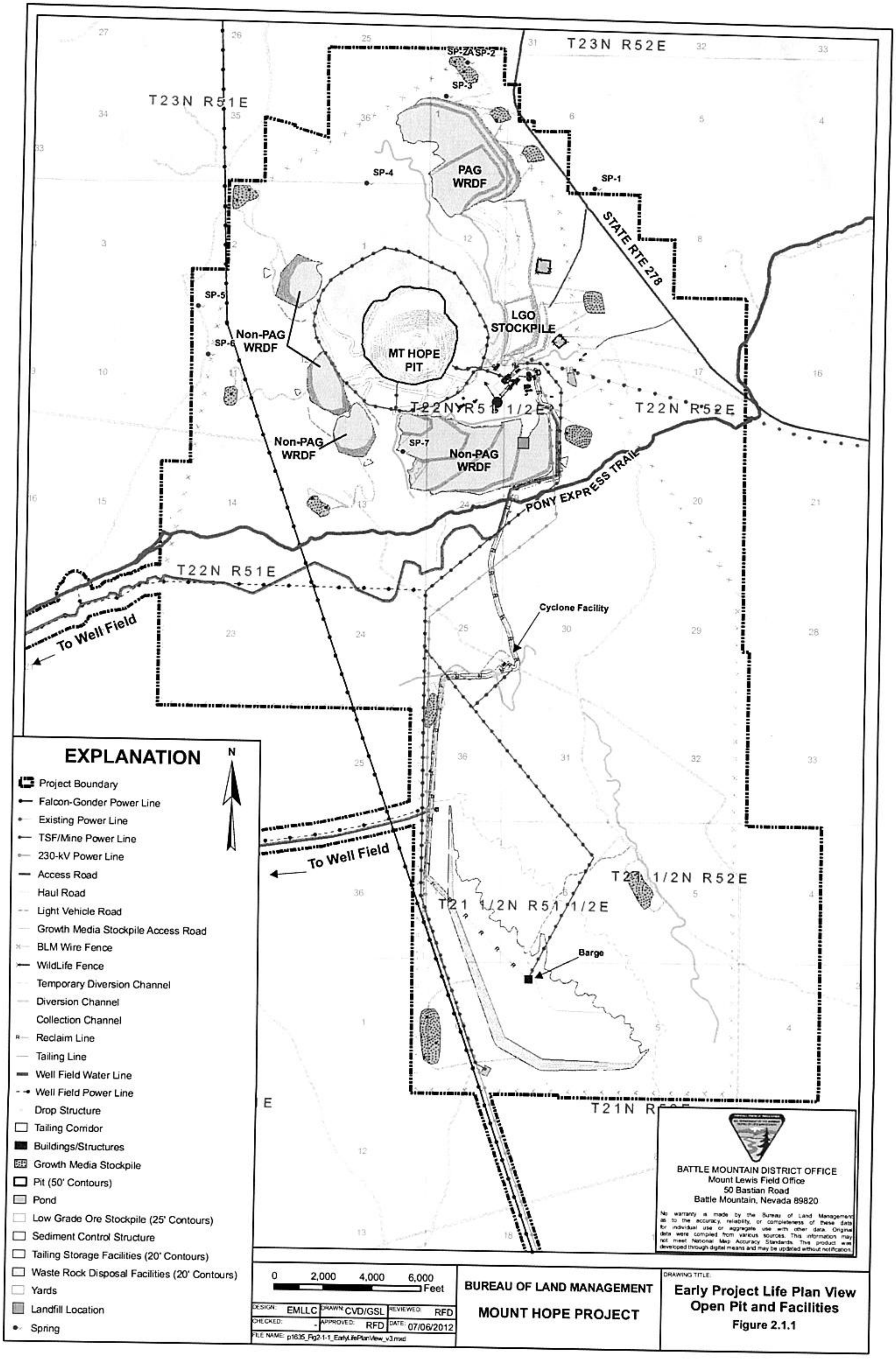
Approximately 2.7 billion tons of ore and waste rock would be excavated from the open pit and either placed in the WRDFs, sent to the mill, or stored in ore stockpiles for later processing at the mill. EML would operate the pit in a safe and practicable configuration that incorporates proper equipment operating room, working geometries, and access roads (Figures 2.1.1 and 2.1.3) to an ultimate open pit limit as shown on Figure 2.1.5. The mine plan employs a starter pit followed by a series of pushbacks which are lateral expansions of the pit by mining of the upper-most benches and then mining downward toward the pit floor. Multiple phases would be in operation at any point in time. Figures 2.1.1, 2.1.3, and 2.1.5 show the development of the open pit and associated facilities during early mining, middle of mining, and end of mining, respectively. Figures 2.1.2, 2.1.4, and 2.1.6 present open pit cross sections at each respective stage in the mine life. A single open pit would result from the phased mining. The ultimate pit depth would be approximately 2,600 feet below ground surface (bgs) at an elevation of approximately 4,700 feet above mean sea level (amsl). Pit backfill is not anticipated due to scheduling and resource evaluation; however, some in-pit waste rock disposal of non-acid generating material may be conducted. **This may be done as a temporary measure during development of the mine when mining and preparation of WRDFs are occurring simultaneously. At this time waste rock produced from the pit may be placed within the pit to allow continued pit development and later placement of this waste rock in the developed WRDF. Temporary placement of waste would not exceed 12 months. In addition, in-pit disposal may become economically preferable during the later stages of mine development when portions of the pit have been mined to the full design extent. Permanent placement of waste rock in the mined out areas would be limited to non-PAG waste rock.**

Table 2.1-2: Equipment Requirements for Project[1]

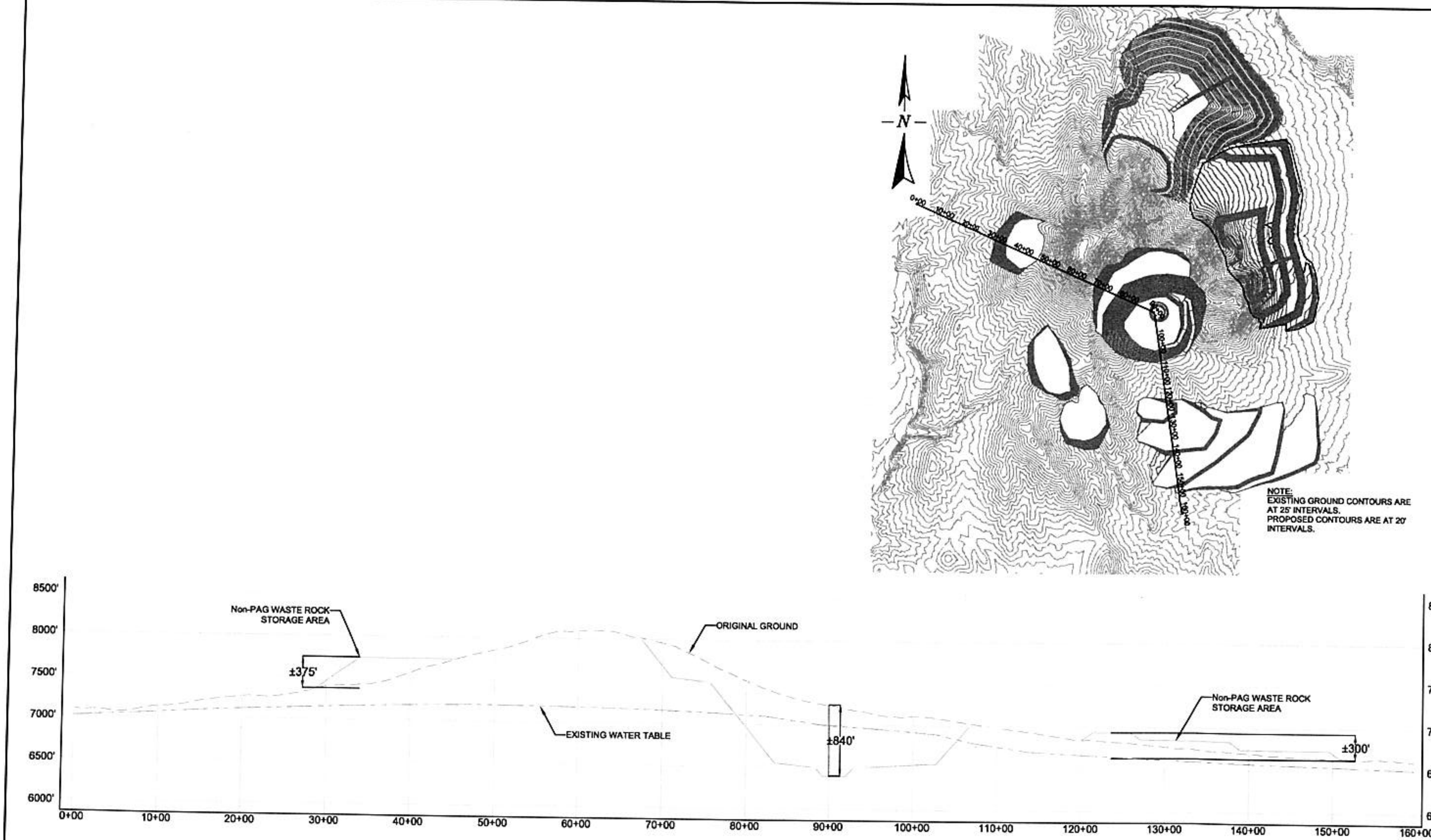
Unit	Peak Quantity During Production
Blasthole Drills	4
Shovels	4
Wheel Loaders	2
Haul Trucks	44
Wheel Dozers	3
Track Dozers	4
Track Excavator	1
Motor Graders	3
Water Trucks	3
Track Drill	1
Shovel Motivator	1

[1] The equipment types listed are general and intended only to provide an indication of the sizes and numbers that would be used; substitutions or additions may be made as necessary.

Conventional open pit mining (truck and shovel) would be used to extract ore and waste rock from the proposed open pit. Drilling and blasting would be used to break the rock so that it could be excavated. Blasting would utilize a mixture of ammonium nitrate and fuel oil (ANFO), although other explosives may be used during wet conditions. Blasting would be performed only during daylight hours and under strict safety procedures, as required by the Mine Safety and



Early Project Life Plan View Open Pit and Facilities
Figure 2.1.1



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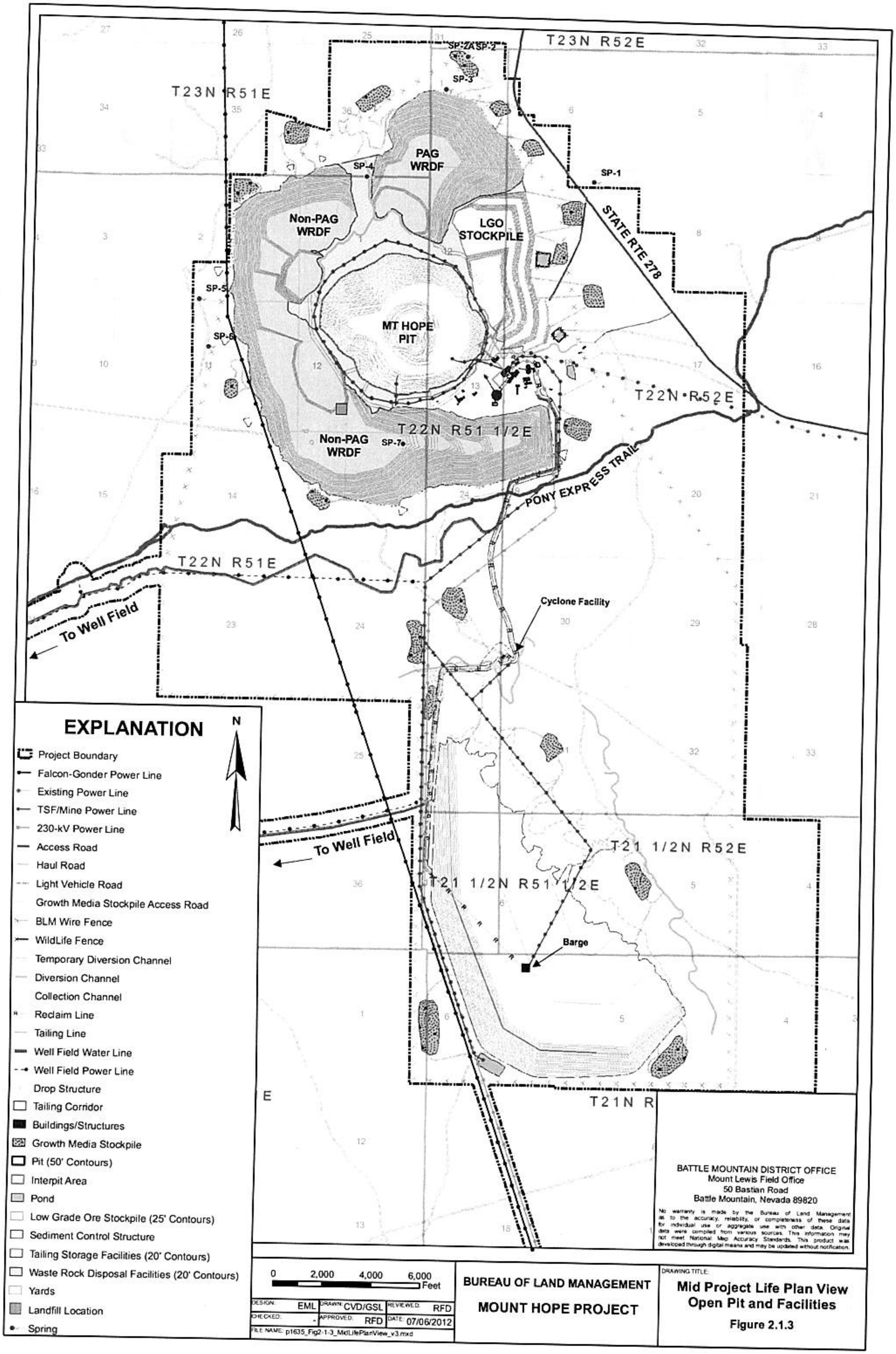
BUREAU OF LAND MANAGEMENT MOUNT HOPE PROJECT					
DESIGN: EMLLC	DRAWN: CM	REVIEWED: RFD			
PROJECT NO. 1635	APPROVED: RFD	DATE: 04/26/2011			
FILE NAME: p1635_Fig2-1-2&4&6_MineLifeCrossSections_v2.dwg					

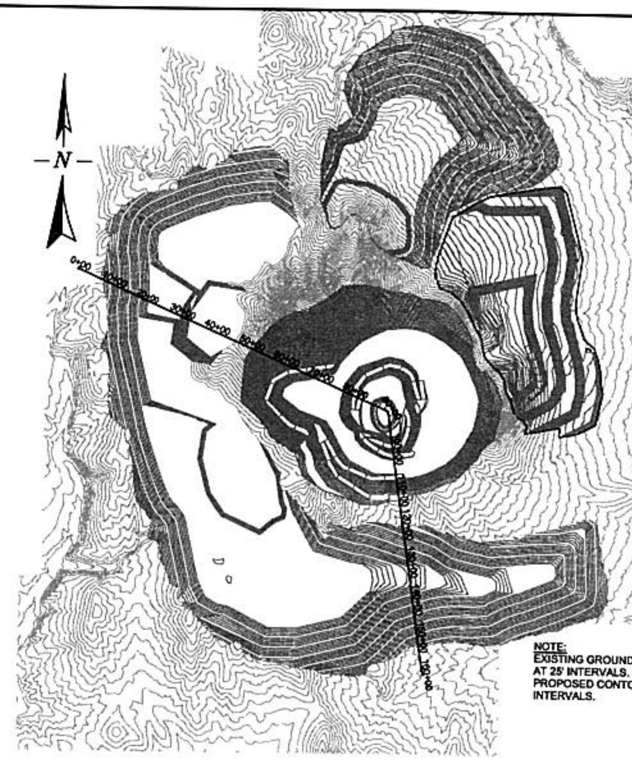
Early Project Life Cross Secton through Open Pit

Figure 2.1.2

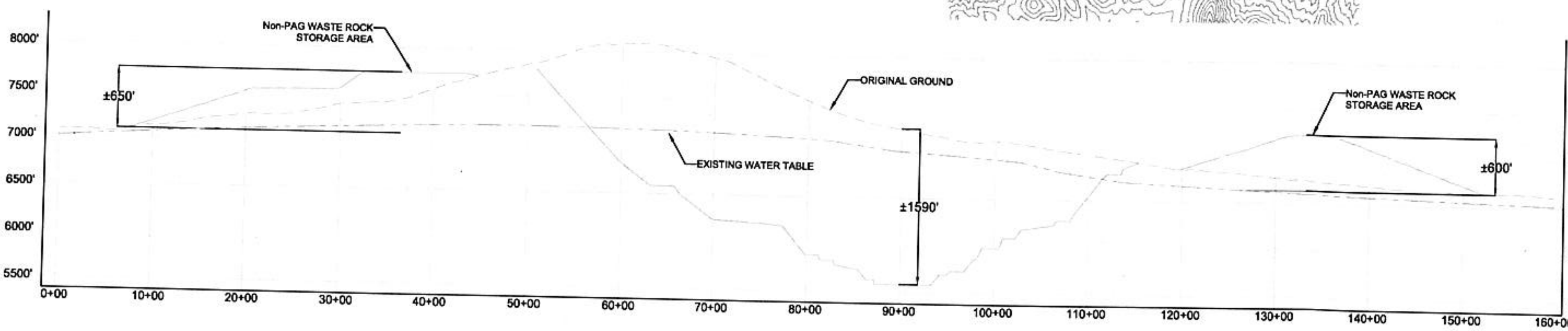


Mid Project Life Plan View Open Pit and Facilities

Figure 2.1.3



NOTE:
EXISTING GROUND CONTOURS ARE AT 25' INTERVALS.
PROPOSED CONTOURS ARE AT 20' INTERVALS.



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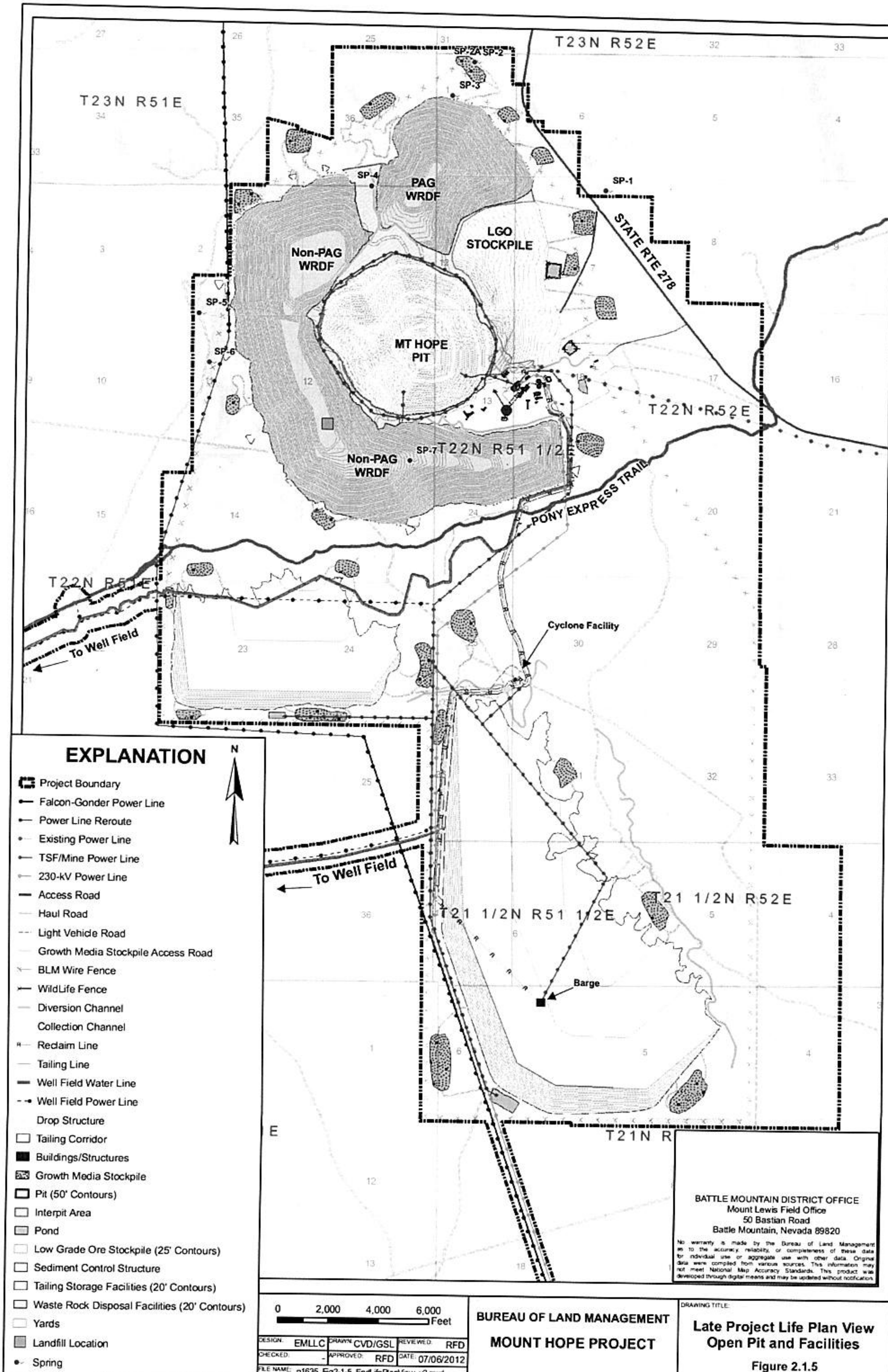
FILE NAME: p1635_Fig2-1-2&4&6_MineLifeCrossSections_v2.dwg

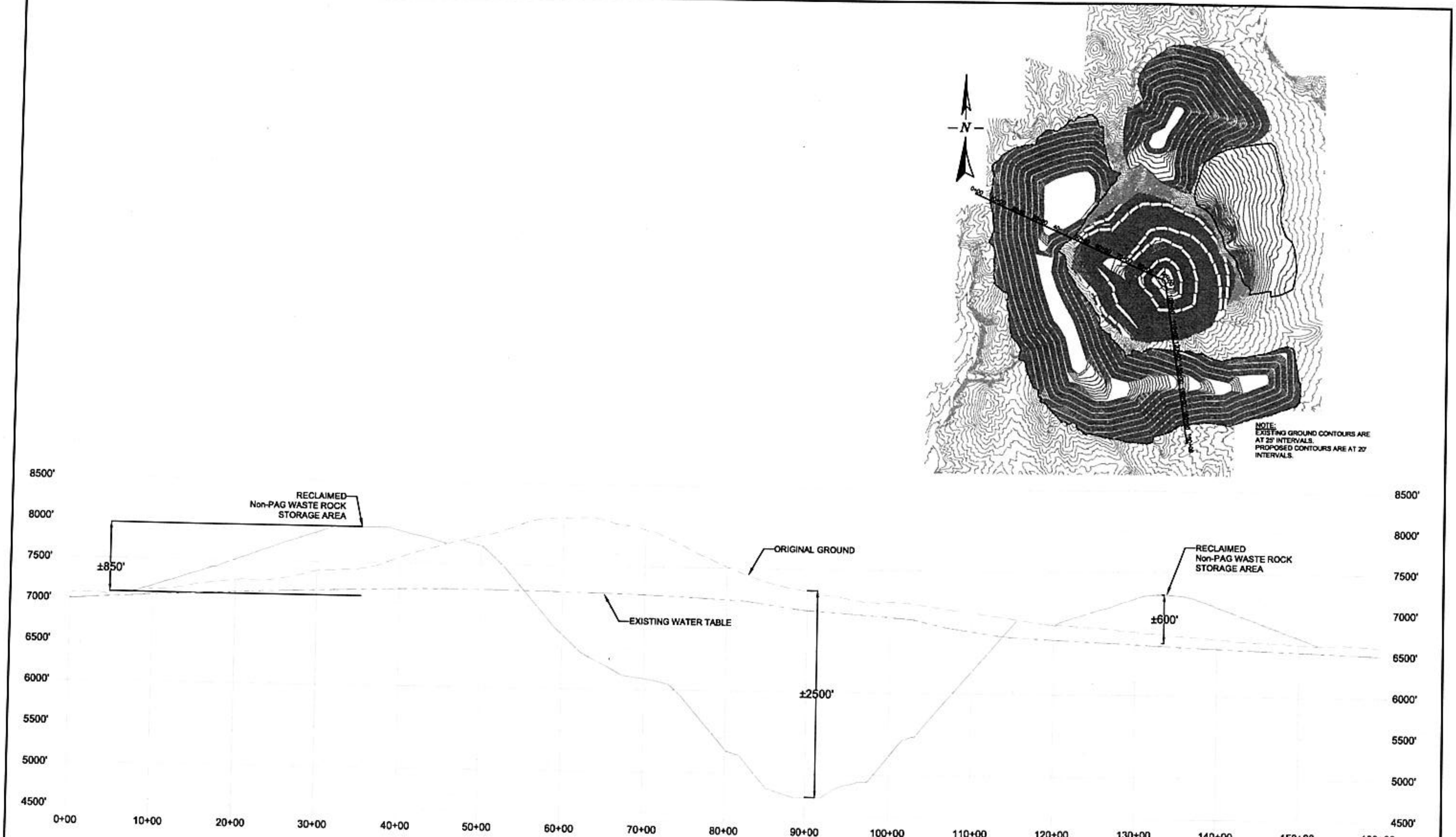
Mid Project Life Cross Secton through Open Pit

Figure 2.1.4



Late Project Life Plan View
Open Pit and Facilities

Figure 2.1.5



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BUREAU OF LAND MANAGEMENT
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FILE NAME: p1635_Fig2-1-2&4&6_MineLifeCrossSections_v2.dwg

Late Project Life Cross Secton through Open Pit

Figure 2.1.6

Health Administration (MSHA). Mill-grade ore would be loaded into haul trucks for transport to the primary crusher/conveyor system or high-grade stockpiles. LGO would be loaded into haul trucks for transport to the low-grade stockpile adjacent to the mill. Waste rock would be hauled to the WRDFs for permanent placement. Mining would be conducted 24 hours per day and seven days per week. The mining rate, ore and waste combined, would average 232,000 tons per day (tpd) over the life of the mine. The highest daily mining rates would be encountered during the first 25 years of production and would average approximately 265,000 tpd.

The angle of the open pit mine slopes would be influenced by rock strength, geologic structure, hydrology, pit wall orientation, and operational considerations. A stability analysis was conducted on a single (49 feet) and a double (98 feet) bench height vertical face geometric design to determine the combined impact of structurally controlled plane shear and wedge failures on the bench face. This analysis is presented in Appendix 2 of the Plan (EML 2006), which is on file and available for review at the BLM's MLFO during normal business hours. Based on this analysis, the pit wall slopes would range from 41 degrees (°) to 49° and average 45°, and the interramp slopes **(i.e., pit wall slopes in between benches)** would range from 45° to 53°. The catch bench widths would vary between approximately 45 feet and 66 feet (CNI 2005). The stability analysis relates to a 22-year mine plan at an ore mining rate of 44,100 tpd. Additionally, EML is committed to review slope stability predictions periodically during the mine life to increase the accuracy of slope stability predictions and to adjust pit designs based on actual mining experience. EML would submit a Plan modification to the BLM should a revision to the pit configuration be necessitated by the updated stability analysis.

2.1.2 Ground Water Management and Water Supply

The Project would require approximately 11,300 acre-feet per year (afy) (approximately 7,000 gallons per minute [gpm]) **of fresh** water supply during the life of the mill processing operation (44 years). Process water would be provided from five different sources: fresh water from the Kobeh Valley Well Field Area; reclaim water from the tailings storage facility; recycled water from the process facility; collected runoff water, including from the PAG WRDF and the LGO Stockpile; and produced water from mine dewatering. After the mill shuts down (Year 44), water demands would essentially become zero, although some water may be necessary for revegetation, domestic uses, or dust control during the reclamation phase of the Project.

2.1.2.1 Water Supply Development

All water used in the process would be routed through the process water tank. The level in the process water tank would control the water delivery rate from the well field. **Pumping from the wellfield would be reduced if water from other sources provided enough water for processing and other water requirements to allow for decreased pumping in the wellfield. Most of the fresh water would be ground water from the Kobeh Valley Wellfield. The fresh water requirement is 7,000 gpm. Most of the water (fresh and non-fresh) used in the project would be for processing Mo ore. Additional smaller amounts would be used for environmental controls (primarily for dust control and to operate the roaster's sulfur dioxide scrubber), potable, and sanitation. Fresh water would be required for some reagent solutions (associated with ore processing), environmental, potable, and sanitation. The rest of the fresh water would be used to "make-up" water requirements for ore processing. The remainder of the total processing requirement, comprising roughly two-thirds to three-**

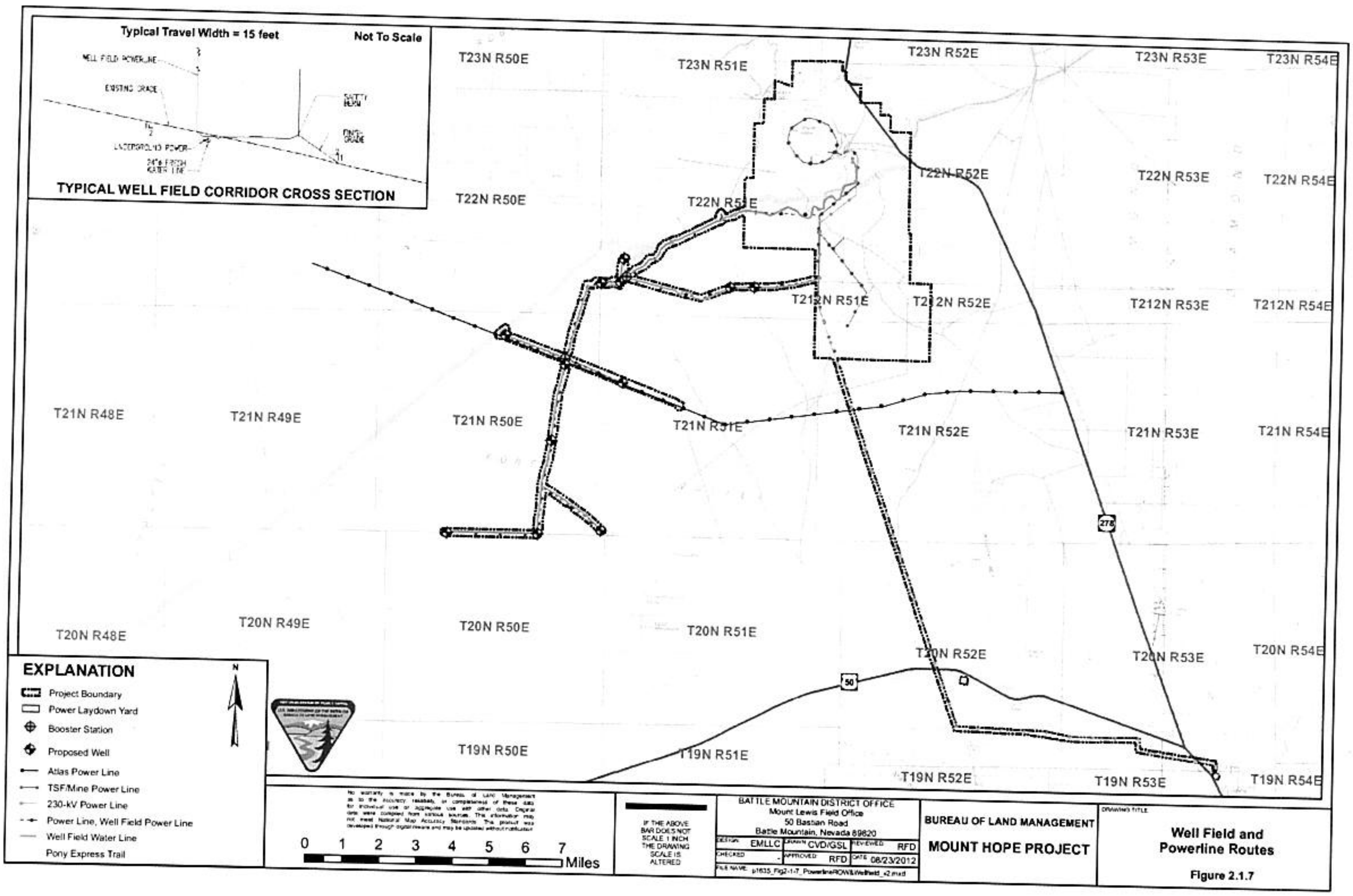
quarters of the total processing requirement, would not be fresh. Non-fresh water includes recycled process water and runoff. Fresh makeup water would be supplied primarily from water wells located in the Kobeh Valley Well Field Area, which would be located entirely within Kobeh Valley. Figure 2.1.7 illustrates, within the Kobeh Valley Well Field Area, the proposed locations of the wells, pipelines, access roads, and power, which consist of eight to 15 wells and two booster stations. It is anticipated that specific well locations may change over the life of this Project, but would be within the Kobeh Valley Well Field Corridor. Each well would be equipped with a pump. Fresh water from each well would be conveyed to a booster station. Water would be pumped to a secondary booster station and further to a one million gallon capacity fresh/fire suppression water tank which would be located at the mill site in the area designated as "Potable, Fresh, and Process Water Tanks" on Figure 2.1.8.

Figure 2.1.7 shows the locations of the initial well field and associated infrastructure. To provide the required fresh water for the Project over the 44-year period of ore processing, the location and number of wells may need to be adjusted within the development area. The primary source of water would be the alluvial aquifer with lesser amounts (no more than ten percent) derived from the carbonate aquifer.

This area is located within all or portions of the following: T20N, R50E; T21N, R50E; T21N, R51E; T22N, R50E; T21N, R51E; T22N, R51.5E; and T22N, R52E. Any change in the number of wells or the location of wells outside of the corridor shown on Figure 2.1.7 would be considered by the BLM MLFO as a modification of the Plan, which would be subject to an appropriate level of environmental review under the NEPA.

Water from the fresh/fire suppression water tank would be **distributed** to the fire suppression water circuit, the mine tank for use in dust control, the potable water circuit, process circuits in the mill facility that require fresh water, and to the gland seal water circuit (water injected at high pressure around a rotating shaft to form a water-tight seal to prevent leaks). Potable water would be supplied from the fresh/fire suppression water tank. Water quality is expected to meet drinking water standards (DWS) (Nevada Administrative Code [NAC] 445A.144). Water would gravity flow from the fresh/fire suppression water tank to the potable water tank with a capacity of approximately 10,000 gallons. EML would secure appropriate permits for the potable water system from the Nevada Bureau of Safe Drinking Water.

Two construction water wells would be located west of the South TSF in the corridor shown on Figure 2.1.7. These wells would supply construction water for the development of the earthen embankment at the South TSF and the main well field. Each well would be powered by a diesel generator; a 500 gallon diesel storage tank in containment would be located at each well. A standpipe would be located at each well to allow water trucks to be filled directly from the wells. The wells would be operated up to 24 hours per day and are projected to provide approximately 300 gpm each. A pipeline approximately ten inches in diameter would deliver water to the unlined earthen TSF Construction Pond. The pipeline would be buried in those areas where it crosses the two-mile buffer for greater sage-grouse (*Centrocercus urophasianus*) leks. This pond would be of sufficient volume to contain approximately one million gallons of water. This water would be used for construction activities, such as wetting the earthen embankment fill material and dust control. Construction water would be used at an average rate of about 300 gpm. A portable pump and standpipe delivery system would be located at the pond to fill water trucks.



Typical Travel Width = 15 feet
Not To Scale
TYPICAL WELL FIELD CORRIDOR CROSS SECTION
T23N R50E
T23N R51E
T23N R52E
T23N R53E
T23N R54E
T22N R50E
T22N R51E
T22N R52E
T22N R53E
T22N R54E
T212N R51E
T212N R52E
T212N R53E
T212N R54E
T21N R48E
T21N R49E
T21N R50E
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T20N R53E
T20N R54E
T19N R50E
T19N R51E
T19N R52E
T19N R53E
T19N R54E
278
50
EXPLANATION
Project Boundary
Power Laydown Yard
Booster Station
Proposed Well
Atlas Power Line
TSF/Mine Power Line
230-kV Power Line
Power Line, Well Field Power Line
Well Field Water Line
Pony Express Trail
N
0 1 2 3 4 5 6 7
Miles
IF THE ABOVE BAR DOES NOT SCALE 1 INCH THE DRAWING SCALE IS ALTERED
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DRAWN CVD/GSL
REVIEWED RFD
APPROVED RFD
DATE 08/23/2012
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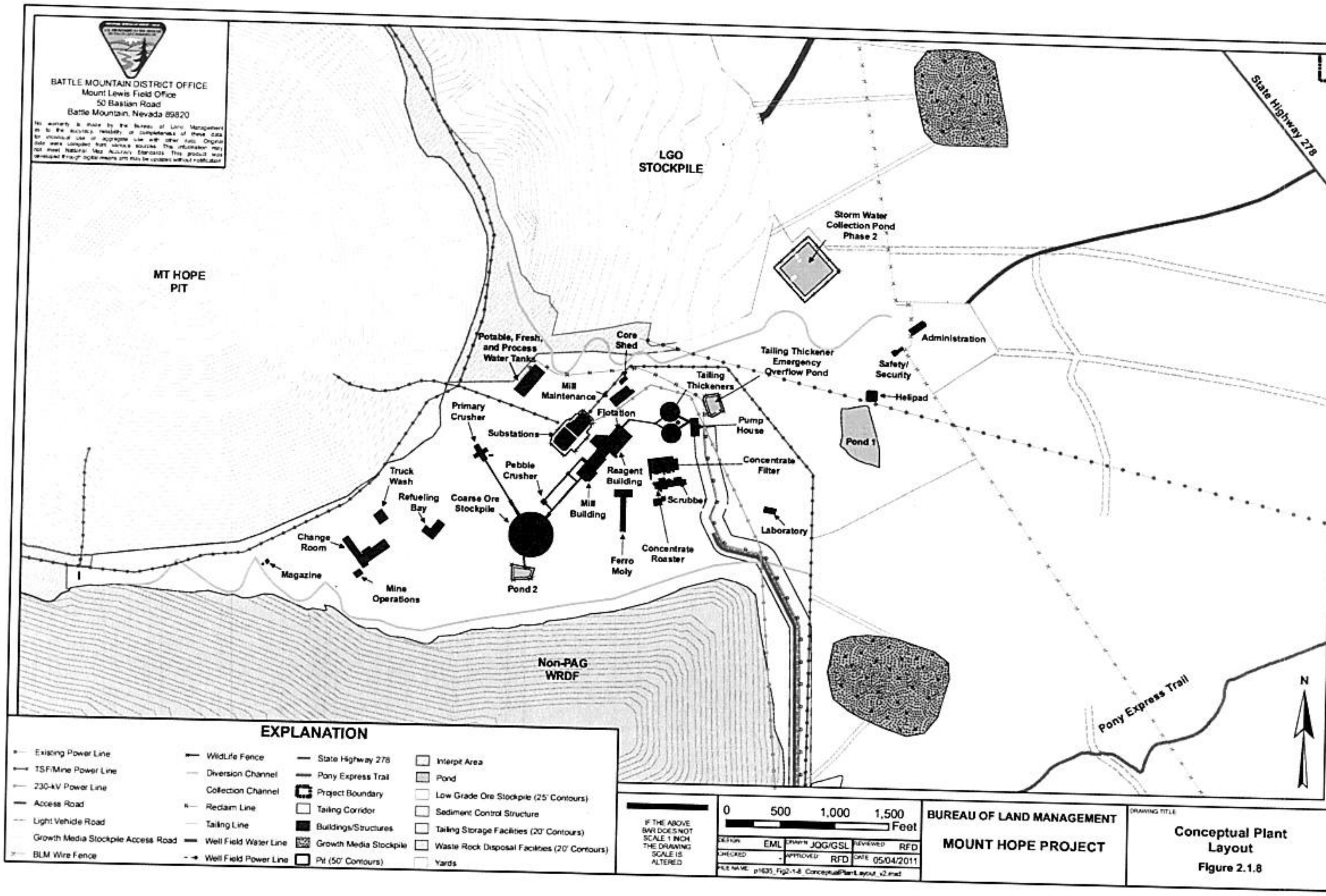
Well Field and Powerline Routes
Figure 2.1.7



Conceptual Plant Layout

Figure 2.1.8

The South TSF seepage collection pond would be constructed early in the construction schedule and would be available for additional water storage if construction water demand increased.

These two wells would be expected to be in continuous operation for approximately 12 months after which time the main well field would supply construction water on an as-needed basis. The wells, pipeline, and standpipe would be left in place following construction and may be used in the future for minor projects, dust suppression or other miscellaneous uses.

2.1.2.2 Mine Dewatering

Dewatering would be required during the mining phase of the Project, with the average pit inflow rate estimated to range between 60 to 460 gpm (100 to 750 afy) commencing in Year 1 of the Project. Mine dewatering is expected to last through Year 32 of the Project. Open pit dewatering would extract ground water from both the Kobeh Valley and Diamond Valley watersheds. Approximately 20 percent of the pit dewatering water would be from Kobeh Valley and 80 percent of the pit dewatering water would be from Diamond Valley, which is proportionally based on the configuration of the open pit relative to the basin divide and the local geology.

Active mine dewatering may not be initiated for several years as inflows during this period may be quite small. Dewatering would proceed throughout mining to ensure that mining would not be negatively affected by ground water inflows. Pit inflows would be managed by in-pit sumps excavated on an as-needed basis. If necessary, horizontal drains and perimeter wells would be utilized during mine operations. The volume of dewatering water would be expected to vary within different sectors of the open pit based on depth and geologic structures and units. The **dewatering water would be considered** "fresh water" **and would be** removed from the open pit **and** used in the mine and mill operations to offset **other** "fresh water" demands from the **production** well field.

2.1.3 Waste Rock Disposal Facilities

The Project would generate approximately 1.7 billion tons of waste rock that would occupy a total footprint of approximately 2,246 acres. Waste rock would be placed in two distinct WRDFs over the life of the mine, which would almost encircle the open pit (Figure 2.1.9). The PAG WRDF would ultimately contain approximately 0.5 billion tons of waste and the non-potentially acid generating (Non-PAG) WRDF approximately 1.3 billion tons. The WRDFs would be constructed in multiple lifts (Table 2.1-3), with typical heights of 100 feet, and setbacks between the lifts that would facilitate final grading to an interbench slope of 2.5 horizontal (H):1 vertical (V) or shallower with a 20-foot wide bench at the toe of each regraded lift. Due to the variations in the underlying topography and the variations in the final heights of the WRDF, there are a total of 11 lifts on the PAG WRDF and 16 lifts on the Non-PAG WRDF. The total height of the WRDFs would range from 750 feet to 950 feet (Table 2.1-3). Although the individual lifts for the PAG and Non-PAG WRDFs total 750 to 950 feet, the WRDFs would be built on sloping ground, and the lower lifts would not extend uphill far enough to lie directly below the upper lifts. The heights of the WRDFs are measured as the maximum thickness above natural topography, and are less than the sum of the individual lifts.

As outlined in Section 2.1.3.2, waste rock from the mining operation would be managed as either PAG waste rock or Non-PAG waste rock. The PAG WRDF would contain PAG materials, and the Non-PAG WRDF would contain Non-PAG materials. Figures 2.1.11, 2.1.12, and 2.1.13 present WRDF configurations at different times throughout the mine life. Figures 2.1.2, 2.1.4, and 2.1.6 present WRDF cross sections at various times during the mine life.

Table 2.1-3: Waste Rock Disposal Facilities Capacities and Height

WRDF Location	Capacity (billion tons)	Total Height (approximate feet)	Top Surface Elevation (approximate feet amsl)	Number of Lifts
PAG WRDF	0.45	700	7,550	11
Non-PAG WRDF	1.3	750-950	7,900	16

The open pit would be connected to the WRDFs by a series of haul road segments and the interpit area. As the WRDFs advance toward the open pit, the road segments being covered would be incorporated into the WRDFs. Design for the WRDFs has been developed on the basis of the geochemical and physical properties of the materials, foundation conditions at the dump sites, and the approximate volume of mine waste that would be produced.

An estimated 4.6 to 49 million tons of Non-PAG material and 2.6 to 29 million tons of PAG material would be extracted annually and placed in the WRDFs. The variation in the annual amounts would be due to the types of materials mined in a given year. This schedule would result in the delivery of approximately 0.5 billion tons of PAG material to the PAG WRDF and 1.3 billion tons of Non-PAG material to the Non-PAG WRDF.

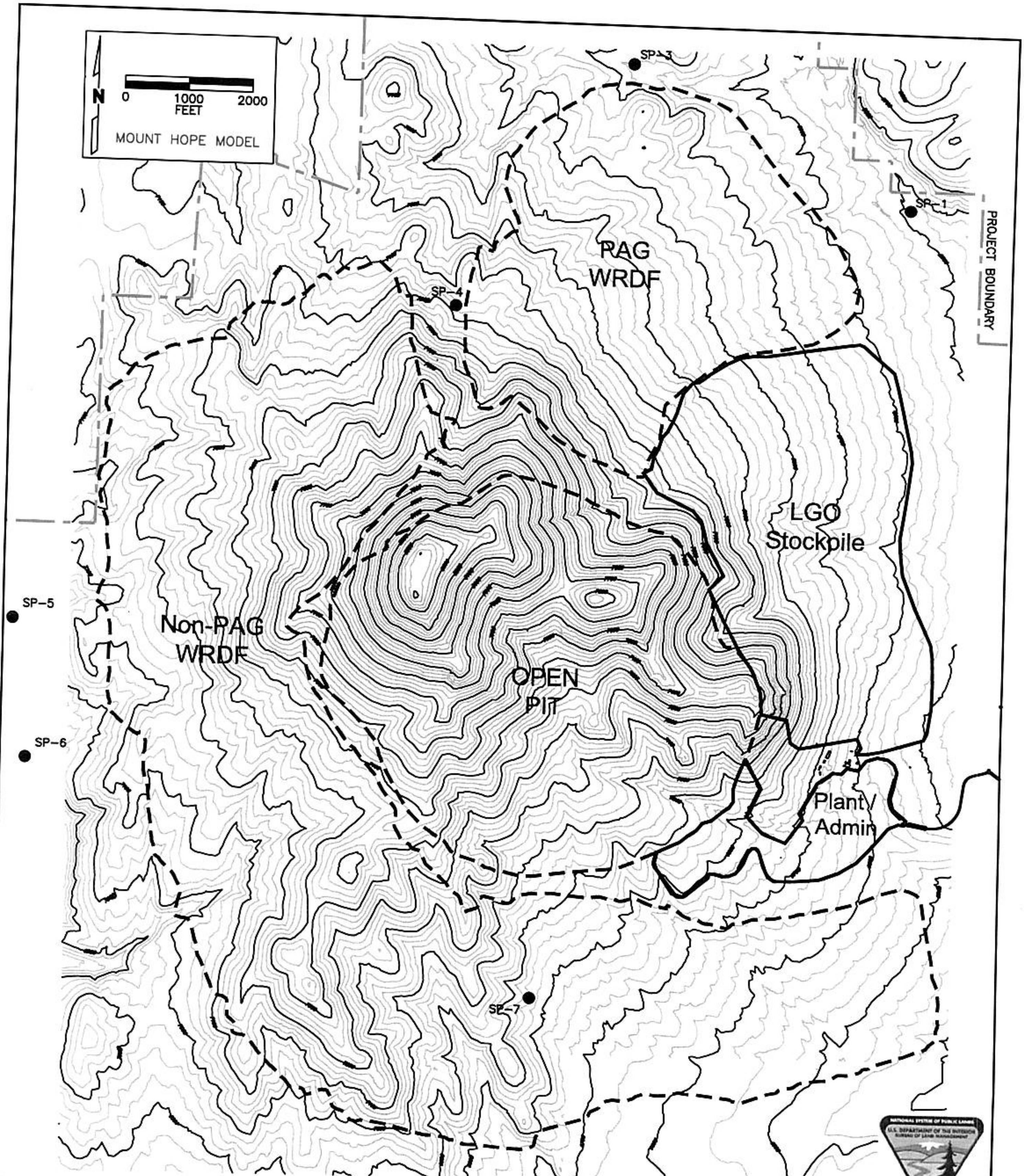
Slope stability analyses were conducted for the WRDFs (EML 2006, page 3-22). Based on the results of the analyses, the WRDFs would be stable for the configurations analyzed (Smith Williams Consultants, Inc. [SWC] 2008a) (Figure 2.1.10).

2.1.3.1 Waste Rock Disposal Facility Design

2.1.3.1.1 Potentially Acid Generating Waste Rock Disposal Facility Design

The PAG WRDF would be designed with a low permeability base layer so that any meteoric water percolating through the PAG material would not infiltrate the subsurface. The objective would be management of water that contacts the PAG waste rock.

To construct the low permeability base layer, the surface would be cleared and grubbed to remove trees, shrubs, vegetation, and salvageable growth media, and graded to achieve positive drainage. **Slash from large trees, shrubs, and roots that are encountered during growth media salvage operations would be mechanically separated from growth media as feasible. This slash material would be stockpiled separately from the growth media where it may be burned, used by the public as fire wood, used in final reclamation as habitat enhancements, or hauled off-site to an approved landfill.** The foundation area would be scarified, moisture conditioned, and compacted to a permeability of less than or equal to 1 x 10^{-5} centimeters per



DRAWING MODIFIED FROM INDEPENDENT, MINING CONSULTANTS, INC. TUCSON, ARIZONA, REF. # 18002, 05-03-07

EXPLANATION

● SP-# Spring

WRDF Waste Rock Disposal Facility

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Revision Date: 08/03/2011	Revised: CVD/GSL	Approved: RFD
Scale:		
Project Number: 1635		
Drawing Name: p1635_Fig2-1-9_LocationofWRDF.dwg		

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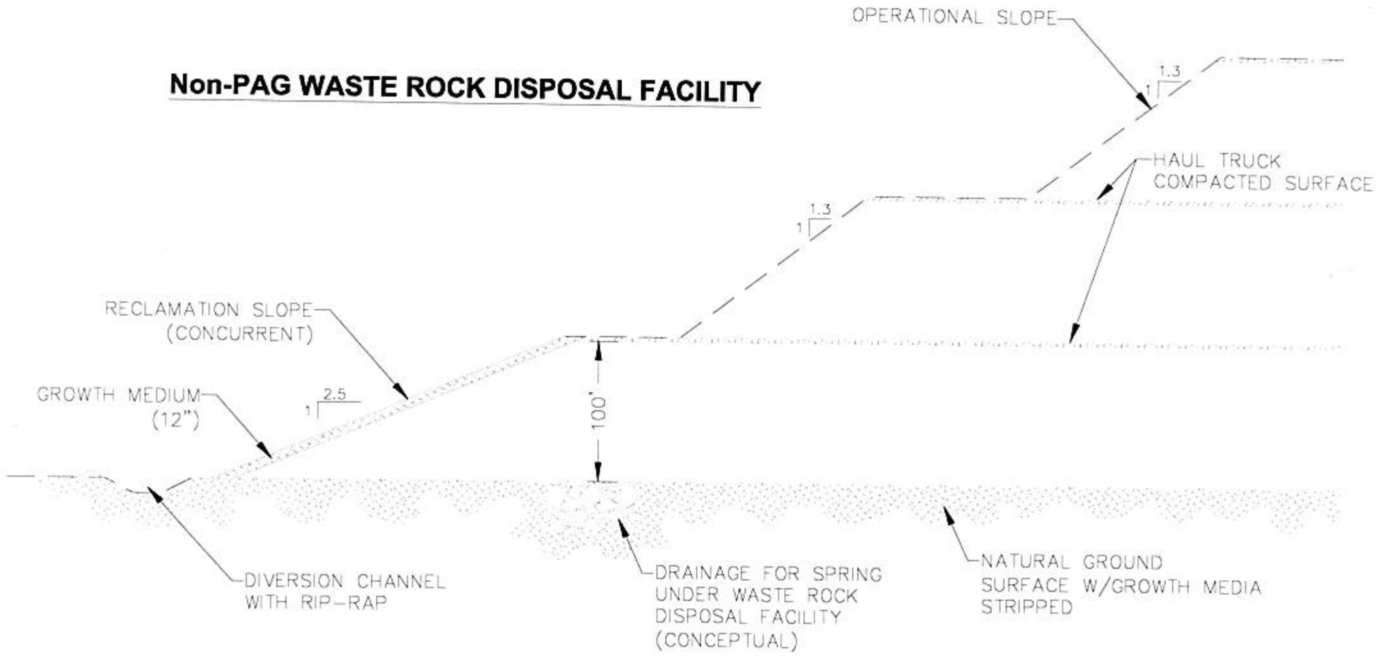
MOUNT HOPE PROJECT

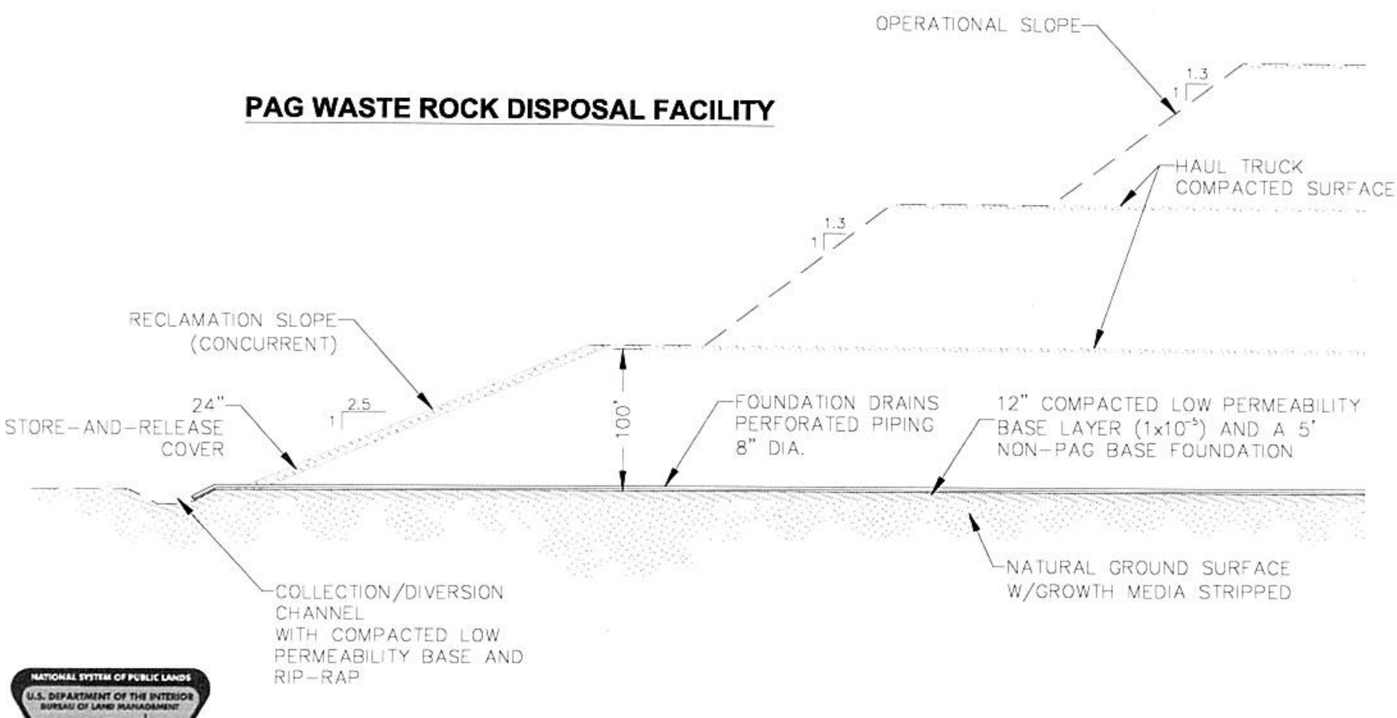
Location of Waste Rock Disposal Facilities

Figure 2.1.9

Non-PAG WASTE ROCK DISPOSAL FACILITY



PAG WASTE ROCK DISPOSAL FACILITY



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Scale: Not to Scale		
Project Number: 1635		
Drawing Name: p1635_Fig2-1-10&36_WRDFCrossSections.dwg		

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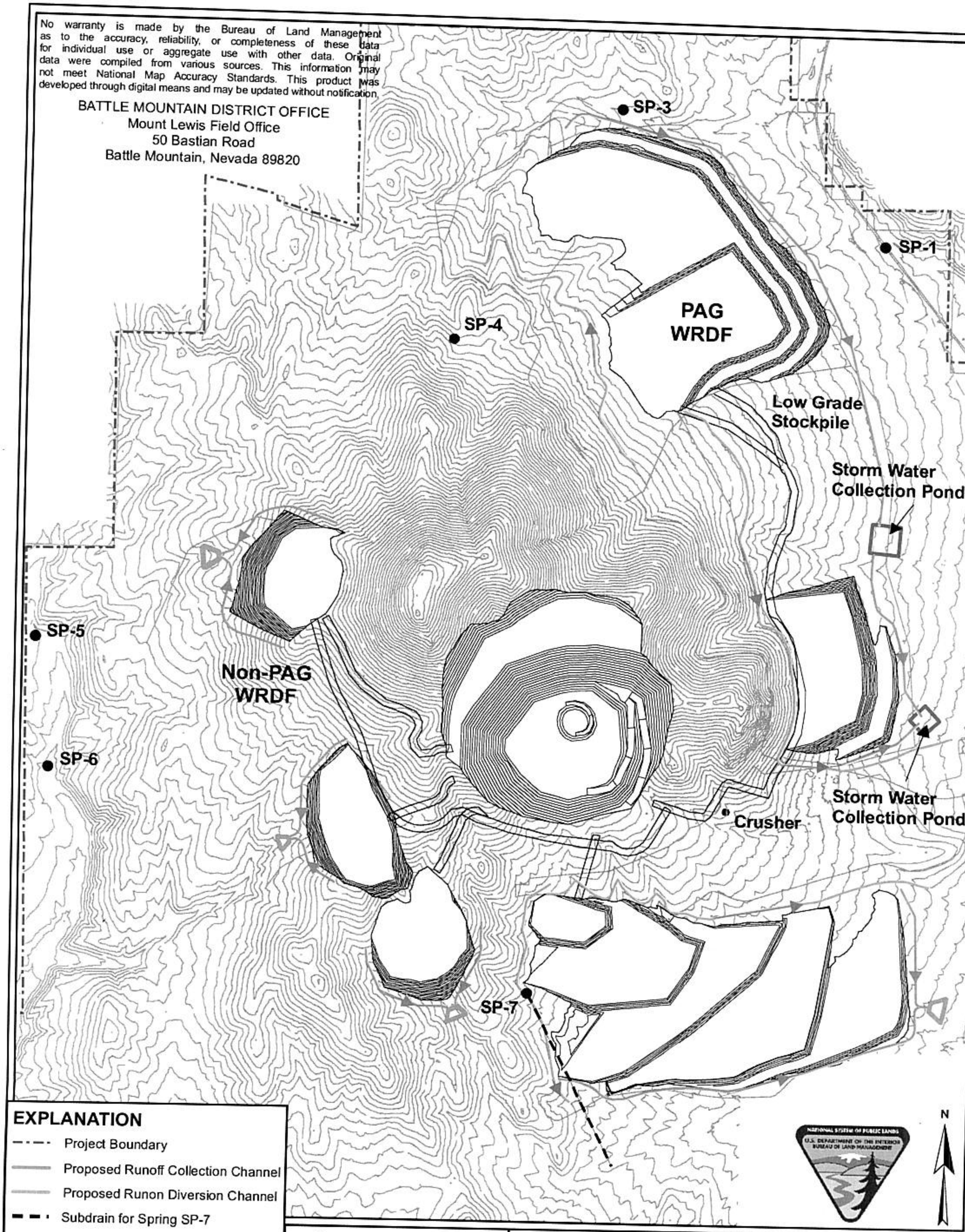
MOUNT HOPE PROJECT

Operational Waste Rock Disposal Facility Cross Section

Figure 2.1.10



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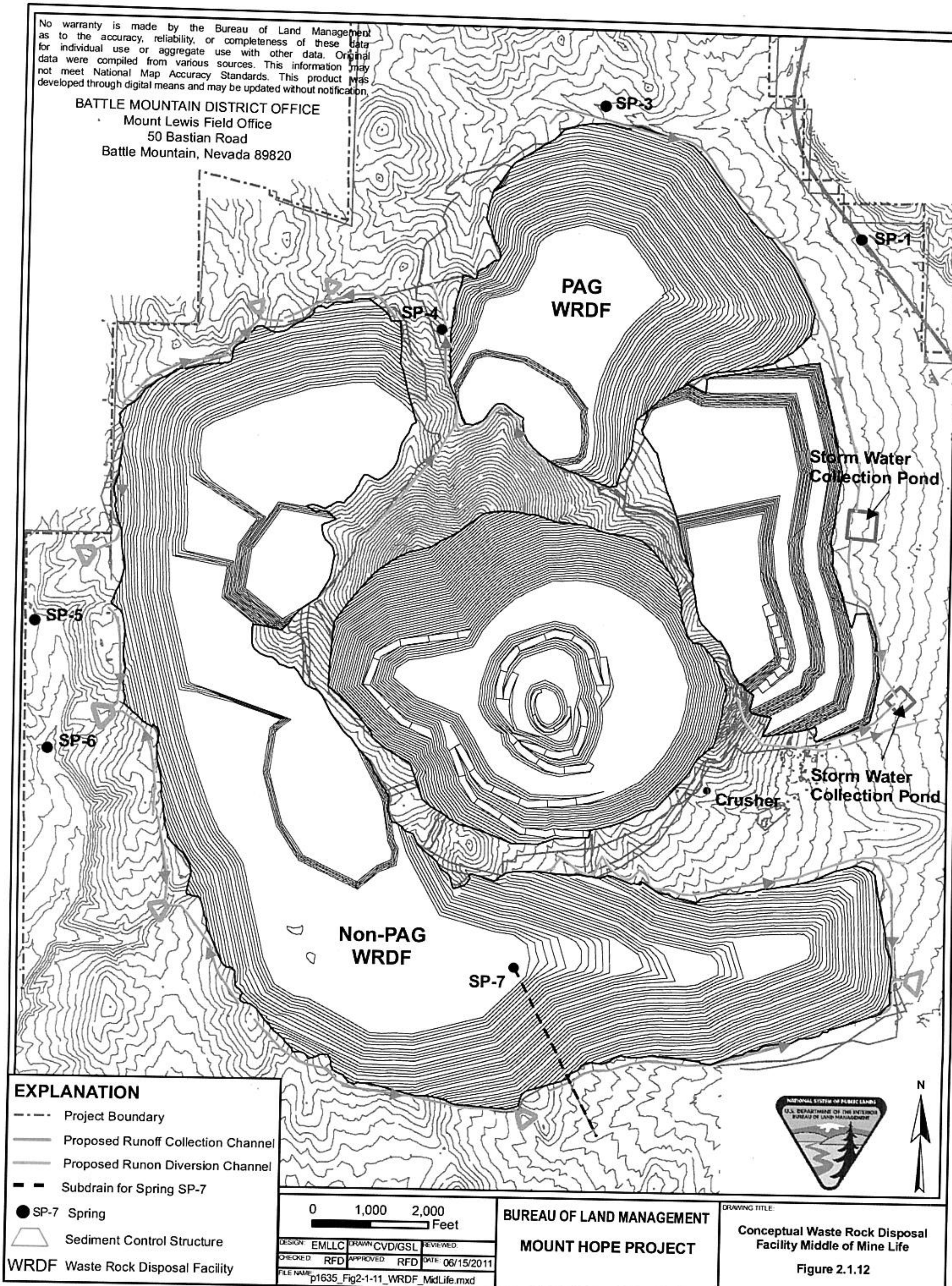
CHECKED: RFD	APPROVED: RFD	DATE: 06/15/2011	MOUNT HOPE PROJECT
FILE NAME: p1635_Fig2-1-11_WRDF_EarlyLife.mxd			

DRAWING TITLE:

Conceptual Waste Rock Disposal Facility Early Mine Life

Figure 2.1.11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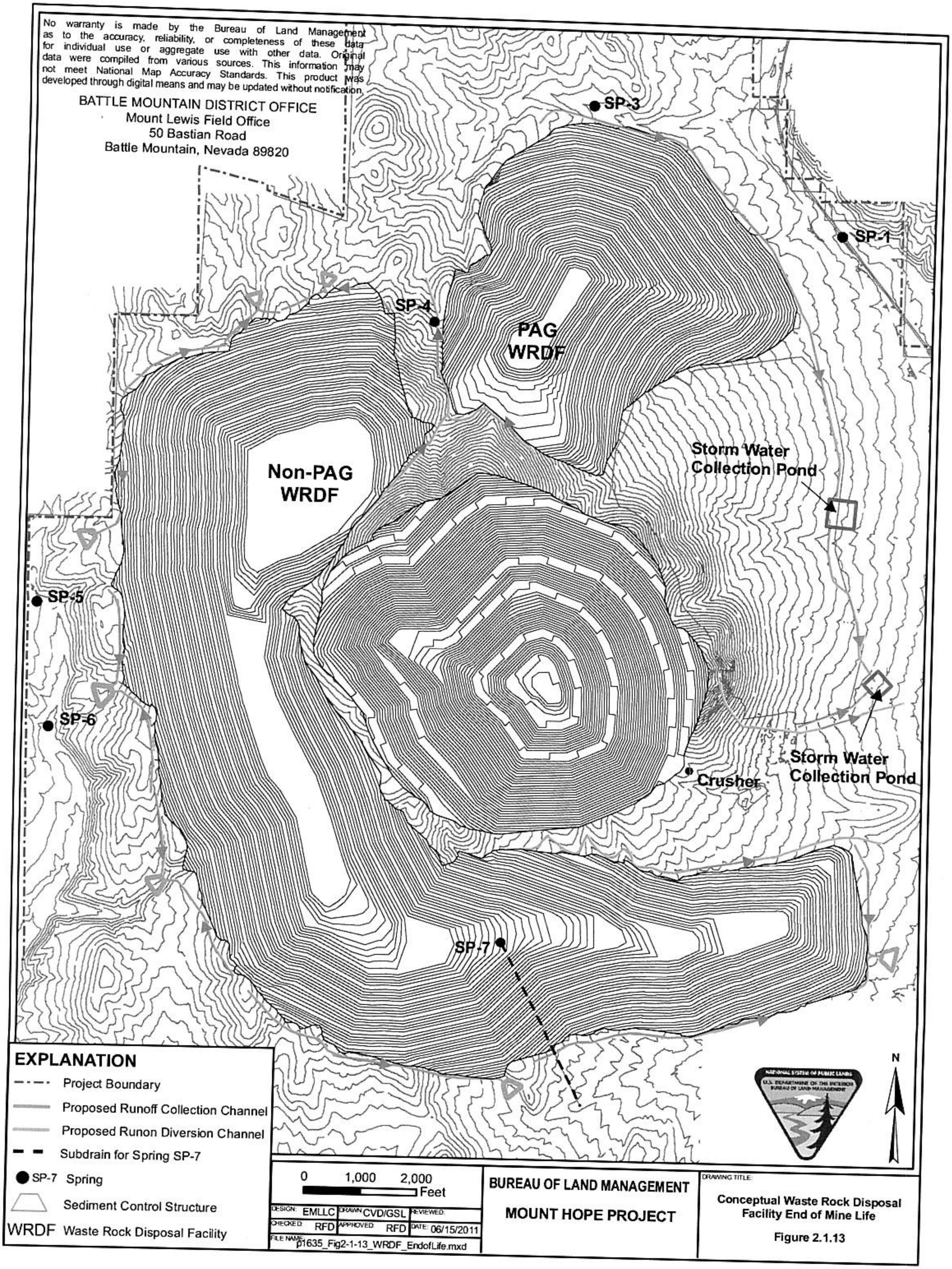
SP-3
SP-1
PAG WRDF
SP-4
Storm Water Collection Pond
SP-5
SP-6
Storm Water Collection Pond
Crusher
Non-PAG WRDF
SP-7
EXPLANATION
Project Boundary
Proposed Runoff Collection Channel
Proposed Runon Diversion Channel
Subdrain for Spring SP-7
SP-7 Spring
Sediment Control Structure
WRDF Waste Rock Disposal Facility
0 1,000 2,000 Feet
DESIGN: EMLLC DRAWN: CVD/GSL REVIEWED:
CHECKED: RFD APPROVED: RFD DATE: 06/15/2011
FILE NAME: p1635_Fig2-1-11_WRDF_MidLife.mxd
BUREAU OF LAND MANAGEMENT
MOUNT HOPE PROJECT
DRAWING TITLE:
Conceptual Waste Rock Disposal Facility Middle of Mine Life
Figure 2.1.12
N



Conceptual Waste Rock Disposal Facility End of Mine Life

Figure 2.1.13

second (cm/sec) and a five-foot thick overlying Non-PAG layer for the foundation. Foundation drains consisting of appropriately sized pipe would be installed within natural drainages of the WRDF foundation to collect precipitation infiltrating through the waste rock and direct it laterally along the foundation to a collection channel located at the east toe. The collection channel would report to a lined pond. Storm water controls would be constructed as discussed in Section 2.1.7.4.

2.1.3.1.2 Non-Potentially Acid Generating Waste Rock Disposal Facility Design

No restrictions would be imposed on the handling and placement of Non-PAG material, some of which may be used as fill for constructing roads or mine facilities or for reclamation purposes elsewhere. The remainder of this material would be placed on the Non-PAG WRDF, south and west of the open pit.

The foundation of the Non-PAG WRDF would be prepared by clearing and grubbing to remove trees, shrubs, vegetation, and salvageable growth media. **Slash from large trees, shrubs, and roots that are encountered during growth media salvage operations would be mechanically separated from growth media as feasible. This slash material would be stockpiled separately from the growth media where it may be burned, used by the public as fire wood, used in final reclamation as habitat enhancements, or hauled off-site to an approved landfill.** The material would be placed directly on the cleared surface with no additional foundation preparation. A sub-drain would be constructed at the location of a spring (SP-7 shown on Figure 2.1.13) by installing a foundation drain. The spring water would then be conveyed to the perimeter of the facility and into a natural drainage. Storm water controls would be constructed as discussed in Section 2.1.7.4.

2.1.3.2 Waste Rock Management

EML has developed a WRMP, which is incorporated into the Plan (EML 2006, Appendix 4) and is summarized in this section of the Proposed Action, to characterize and predict the potential geochemical reactivity and stability of waste rock from the Project operations. The characterization addresses mineralogy, bulk geochemical characteristics, and potential of the material to generate acid or net neutral drainage. Based on the characterization, the WRMP also outlines a waste rock classification system to be used for the management of waste during WRDFs construction.

The WRMP documents the procedures for characterizing, classifying, and managing waste rock associated with the Project for surface waste rock disposal. A complete description of the waste rock characterization program and the results are provided in SRK Consulting, Inc.'s (SRK's) WRMP (2007a). Specifically, the WRMP includes the following:

- Characterization of waste rock according to geochemical testing;
- Characterization of the nature and volume of waste rock to be produced according to the current long range mine plan;
- Classification of the waste rock according to operational criteria for waste rock management;

- Waste rock deposition procedures to minimize potential oxidation and solute generation; and

- Reclamation and closure activities planned for the WRDFs, as discussed in Section 2.1.16.9.

The WRMP incorporates Acid Base Accounting (ABA) and solute generation information with general waste rock volumes and types in order to optimize the development of WRDFs and minimize the potential for constituent release, while supporting final closure actions.

The WRMP would be updated and modified as needed to integrate data from ongoing geochemical studies, mine modeling changes, mine planning, WRDF performance monitoring, or other information. The proposed mining operations, and thus the WRDF construction, are estimated to last 32 years.

2.1.3.2.1 Waste Rock Classification

The criteria used in the classification of materials for use in waste rock management need to be sufficiently sensitive to the indicators of metal leaching and acid generation as defined by the characterization program, but simple enough for operational waste management. The geochemical characterization study, which is included in the Plan (EML 2006, Appendix 5), has shown that there is a relative lack of carbonate and the primary control on metal leaching and acid generation for the Mount Hope material types is the concentration of sulfide minerals, which can be quantified by the measurement of total sulfur (S). This parameter is also the most sensitive of the geochemical characteristics evaluated during the characterization program and provides the most reliable prediction of acid generation potential. Consequently, total S has been selected as the main diagnostic indicator of metal leaching and **acid-generating potential** (AGP) associated with the Mount Hope waste rock material types.

The BLM guidelines (IM No. NV-2008-32 and NV-2010-014) consider waste rock to be Non-PAG without additional kinetic testing if there is 300 percent excess neutralizing capacity (i.e., Neutralization Potential Ratio [NPR] greater than 3).

Results of the Mount Hope static and kinetic tests demonstrate that waste rock materials with greater than 0.5 weight percent total S are acid generating and materials with less than 0.3 weight percent total S are non-acid generating. Waste rock materials with total S values between 0.3 and 0.5 weight percent demonstrate variable geochemical behavior. However, waste rock materials that fall within this range of total S content (i.e., between 0.3 and 0.5 weight percentage) only comprise a small portion of the total waste rock (i.e., less than one percent based on the current mine plan) and would therefore be conservatively classified as PAG material for the purposes of waste rock classification and management.

Based on site-specific static and kinetic test work, the materials at Mount Hope can be segregated into two waste rock management classes:

- Non-PAG; and
- PAG.

Materials that have greater than 0.3 weight percent total S are classified as PAG and materials that have less than 0.3 weight percent total S are classified as Non-PAG.

The criteria are outlined in Table 2.1-4.

Table 2.1-4: Mount Hope Waste Rock[1] Classification System

Total Sulfur	Waste Classification
S > 0.3%	PAG
S ≤ 0.3%	Non-PAG

[1]Waste Rock = rock with less than 0.034 percent Mo

Total S can be quickly estimated in the on-site laboratory by analysis in a LECO manufactured analyzer. The results from the on-site laboratory would be used to classify waste rock according to the criteria summarized in Table 2.1-4.

2.1.3.2.2 On-Site Waste Rock Segregation

Blast hole cuttings would be collected for the LECO process at the on-site laboratory. One sample would be collected from each blast hole. If justified by data collected during operations, a reduction in sampling frequency could be proposed. These data would be used to define the waste type per the criteria summarized in Table 2.1-4. Waste types would be routed directly from the open pit to the appropriate WRDF.

As mining continues and the ore/waste model is refined, the model prediction of the sulfide content could be used along with selective laboratory analysis to route waste rock. **The method of routing waste rock by using selective laboratory analysis and model predictions would be augmented with visual inspection of waste rock to further verify sulfide content, and comparison of model results with previously mined benches to confirm the accuracy of the predictive model. Authorization from the BLM and BMRR would be obtained prior to implementing this alternative waste segregation method.**

2.1.4 Low-Grade Ore Stockpile

The LGO would be mined during pre-stripping through Year 32 and stockpiled for subsequent processing in Years 32 through 44. Approximately 263 million tons of LGO would be placed in a series of lifts to the east of the open pit as shown on Figure 2.1.9. The LGO Stockpile would generally be constructed in multiple lifts with typical heights of 100 feet and setbacks between lifts.

The LGO Stockpile would be constructed on a compacted base in the same manner as the PAG WRDF and would have similar storm water and drainage management systems installed. The material in this stockpile could be processed periodically throughout the mining operation or after mining operations have ceased. At closure, the LGO Stockpile area would be completely cleared of low-grade material and then reclaimed.

2.1.5 Ore Processing Facilities

The process components at the mill would consist of the following: crushing and ore storage; stockpile reclaim and grinding, flotation and regrind; Mo concentrates dewatering; concentrate leaching; concentrate roasting; TMO packaging; FeMo alloy production and packaging; and reagent use and storage.

Molybdenite would be recovered from the ore using conventional concentration methods. The nominal throughput rate would be 60,500 tpd. Actual processing rates may be lower or higher based on ore hardness and realized equipment efficiencies. The primary crusher and conveyors would be designed to handle a maximum of 114,000 tpd. The stockpile feeders and grinding circuit would be designed to handle a maximum of 86,400 tpd. Figure 2.1.8 shows the conceptual plant layout.

The milling operations would include conventional crushing, wet grinding, and rougher flotation, using a standard reagent scheme for mineral recovery. Thickeners and filters would dewater concentrates to produce a filter cake for further processing in a roaster. The Mo circuit would produce a concentrate with a Mo content of approximately 55 percent at a projected Mo recovery of 82 to 88 percent depending on mill feed grade and **mineral characteristics**. Mo concentrate with impurity levels that would be outside of customer specifications would be leached by a ferric chloride process to reduce the impurity concentrations to the specified levels. Mo concentrate with low levels of impurities may be sent directly to the roaster without leaching. Figure 2.1.14 presents a schematic of the process flow.

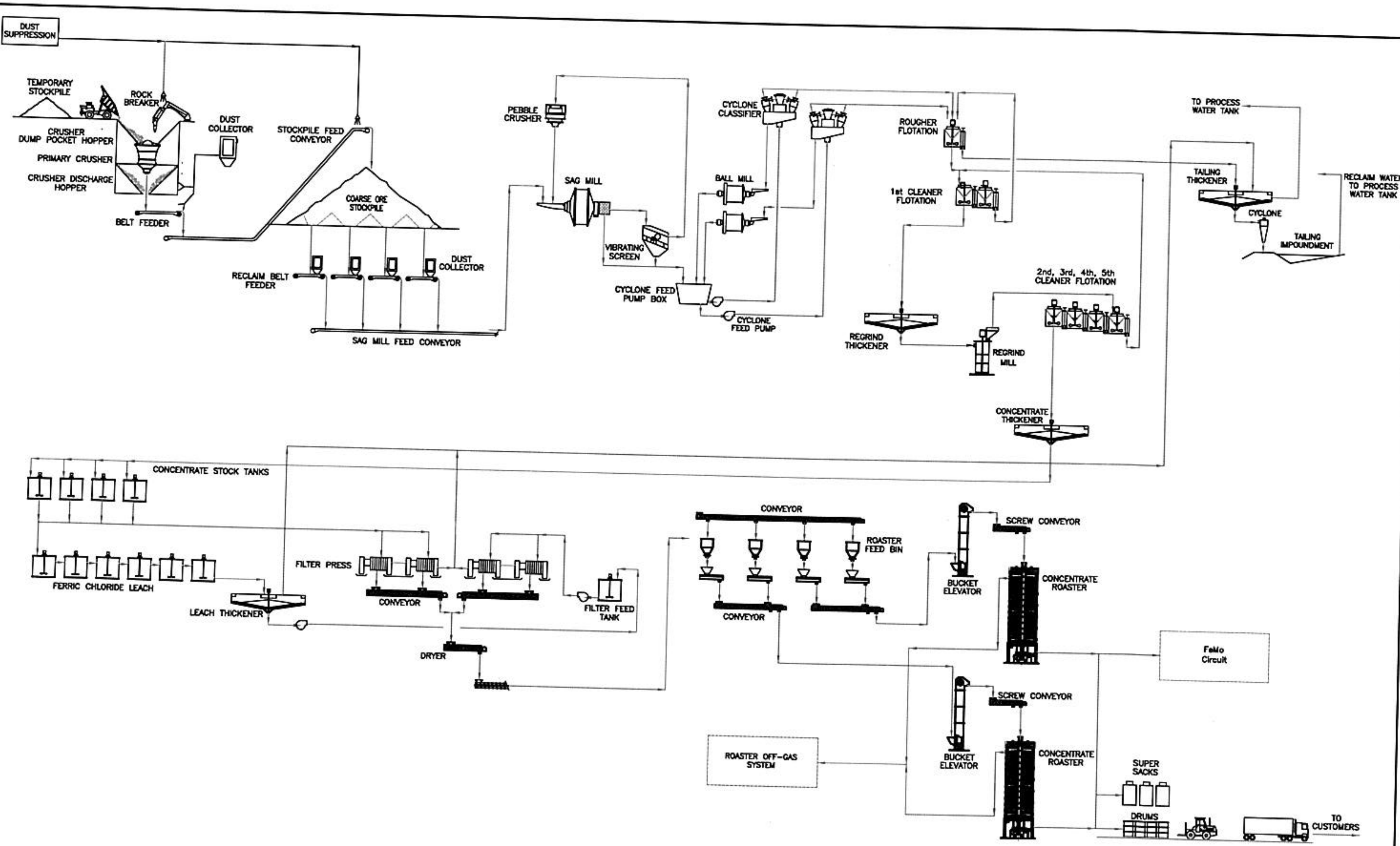
Dried Mo concentrate would be processed in a multi-hearth roaster with a maximum throughput capacity of approximately 50 million pounds of Mo metal contained in TMO per year. Up to 50 percent of TMO produced could be converted to FeMo alloy using a metallothermic process.

EML proposes to toll roast (the practice of processing another party's concentrate at another facility for a specified price) Mo concentrates produced by other mines to productively utilize the full capacity of the roaster at a rate of approximately seven 22-ton capacity highway trucks per day. Toll concentrates would be stored in the Concentrator Filter Building prior to processing (Figure 2.1.8). If the toll concentrates require pre-treatment prior to roasting to remove impurities, these concentrates would be directed to the ferric chloride leach circuit as shown in Figure 2.1.14.

2.1.5.1 Crushing and Ore Grinding

Run-of-mine ore would be delivered to the primary crusher station by haul trucks. Under normal operations the trucks would discharge directly into the crusher dump pocket hopper. When the crusher is not operational, trucks would unload ore onto a temporary ore stockpile **in the pit or immediately** adjacent to the crusher station with a capacity for several days of ore processing.

The primary crusher station would be a conventional fixed structure with a dump pocket hopper positioned directly above the gyratory crusher. A hydraulically operated pedestal mounted rock breaker would be installed at the dump pocket. The dump pocket hopper would be designed to be capable of receiving ore simultaneously from two haul trucks. Primary crushed ore would be



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PROJECT NO. 1635	APPROVED: RFD	DATE: 04/29/2011
FILE NAME: p1635_Fig2-1-14_ProcessFlowDiagram_v2.dwg		

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Process Flow Diagram

Figure 2.1.14

Source: M3 2009

transferred from the crusher discharge hopper to the coarse ore transfer conveyor by a belt feeder.

A stockpile feed conveyor would carry primary ore (nominal six-inch crushed size) from the primary crusher onto the coarse ore stockpile. A dry cartridge filter type dust collector system would be installed in the crushing area to control dust at the crusher discharge hopper and the belt feeder. A water spray system would be used for dust suppression at the dump pocket hopper. A water spray system would be installed at the discharge point of the stockpile feed conveyor to the coarse ore stockpile to suppress dust generated from material discharge onto the pile.

Primary crushed ore would be stockpiled on a lined coarse ore stockpile. A reclaim tunnel beneath the stockpile with four reclaim belt feeders would discharge onto the SAG mill feed conveyor. The coarse ore stockpile would have a capacity of approximately 300,000 tons. The live capacity (material that can be recovered by the feeders without working the stockpile) would be approximately 68,000 tons. During periods of downtime on the crushing and coarse ore conveyor system, dozers or other equipment would push ore from the perimeter areas of the stockpile into the reclaim feeders. A dry cartridge filter type dust collector system would be installed to control dust at the discharge of the reclaim feeders.

2.1.5.2 Grinding

The SAG mill is a wet grinding process and would operate in closed circuit with a trommel screen, vibrating screen, and **potentially a** pebble crusher. Screen undersize would flow from the screens to the primary cyclone feed pump box where it would be pumped to cyclone classifiers. Screen oversize would be conveyed to the pebble crusher where it would be crushed before being sent back to the SAG mill. The two ball mills would operate in parallel and in closed circuit with the cyclone classifiers. Underflow from the cyclone classifiers would flow to the ball mills. Ball mill discharge would flow to the cyclone feed pump box for circulation back through the cyclone classifiers. The SAG mill would have a nominal fresh feed rate of 2,746 tons per hour (tph) and a maximum design fresh feed rate of approximately 3,600 tph. Actual mill throughput would vary due to the ore hardness, flotation characteristics, and equipment efficiencies.

2.1.5.3 Flotation and Regrind

Overflow from the cyclone classifiers would flow by gravity to the rougher flotation circuit and further to the cleaner and cleaner scavenger circuits. There would be two rows of eight rougher flotation cells. The rougher flotation concentrate from the two rows would flow by gravity to the rougher concentrate sump from which it would be pumped to the cleaner flotation cells. Tailings from the rougher flotation cells would flow to the tailings thickener.

Rougher concentrate would proceed to the first cleaner flotation cells and the first cleaner scavenger flotation cells. Tailings from these float stages would join the rougher tailings stream and be sent to the tailings thickener. Should the tailings be high in Mo, the cleaner scavenger tails would be recycled to rougher feed. The first cleaner concentrate would be reground in the **regrind** mill operated in closed circuit with cyclone classifiers. The regrind cyclone classifier underflow would report back to the regrind mill and the overflow to the second, third, fourth, fifth**, sixth, and seventh** cleaner flotation stages.

Concentrate from the **seventh** cleaner flotation stage would be thickened in the final concentrate thickener. The thickener underflow would be pumped to one of four stock tanks in the ferric chloride leach plant.

2.1.5.4 Ferric Chloride Leaching and Dewatering

The primary purpose of the ferric chloride leach process is to reduce the concentration of impurities such as copper (Cu), lead (Pb), iron (Fe), and zinc (Zn) in the molybdenite concentrate. Flotation concentrates that meet the specifications would bypass the leach circuit and proceed to the dewatering circuit.

Flotation concentrate would be stored in one of four stock tanks, each sized to store 24 hours worth of production. Concentrate in each stock tank would be sampled and assayed for Mo, Cu, Pb, Fe, and Zn. Based on the analysis, the concentrate slurry would be pumped to the ferric chloride leach circuit or bypassed to two filters. From the filters, the filter cake would discharge to conveyors to be transferred to dryers.

Flotation concentrate sent to the ferric chloride leach circuit would be pumped to six agitation tanks operating in series. In the leach tanks, impurities would be dissolved in a ferric chloride and hydrochloric acid solution at 180 to 200 degrees Fahrenheit (°F) for 16 to 24 hours. The leached concentrate slurry would then flow to the leach thickener. After thickening, the concentrate would be filtered through two filters and filter cake would discharge to a conveyor to be transferred to dryers. The dried concentrate would be conveyed to the roaster feed bin.

2.1.5.5 Technical Grade Molybdenite Oxide Plant

Molybdenite concentrate would be roasted to produce TMO in two multiple hearth furnaces, operating in parallel. Concentrate would primarily come from the on-site mill. However, concentrate from offsite may be used and toll roasted to supplement the on-site concentrate to allow the roaster to operate on a more consistent basis at the designed and permitted capacity. The delivery of the off-site concentrate would be up to seven 22-ton capacity highway trucks per day. The transportation off-site of the roasted concentrate would require up to nine 22-ton capacity highway trucks every two days.

Concentrate would be discharged from the four roaster feed bins and conveyed to feed ports at the top of the roasters. In the roaster, the concentrate would travel down through multiple hearths via the raking action of rabble arms that would be attached to a rotating center shaft. Oxidation of the concentrate would take place as the material traveled through the furnace, which would operate at 1,000 to 1,300 °F. Oxygen would be supplied by ambient air pulled into the furnace through the hearth windows. Final TMO product would be transferred to the product packaging circuit.

The TMO may be packaged in various types of containers such as cans, drums, or super sacks or made into briquettes for shipment in drums or super sacks. TMO made into briquettes would be transferred to the pug mill where ammonium hydroxide would be added to create a paste. The paste would be discharged to a briquette machine, and briquettes would be discharged onto a curing conveyor. Briquettes would be transferred to drum loaders. TMO to be shipped as powder would be transferred from the TMO day bins through a series of bins and conveyors to a drum loader.

Roaster off gas would contain S oxides (mostly sulfur dioxide [SO_2]), moisture, nitrogen (N), excess oxygen and entrained dust particles consisting of Mo oxides and molybdenite. The off gas treatment would consist of dust recovery followed by wet gas scrubbing to remove the SO_2. This scrubbing system would produce a gypsum solid, which depending on regulatory limitations, could be recycled to local agricultural operations as a soil supplement.

Up to 50 percent of TMO produced could be converted to FeMo alloy using a metallothermic process. Essentially, the process would involve reduction of TMO and iron oxide by aluminum (Al) and silicon (Si). The process is highly exothermic and would reach completion within ten to 20 minutes after ignition. A typical batch would consist of 2,000 pounds of TMO, to which is added Al metal powder, Fe oxide ore (hematite or magnetite), and ferrosilicon alloy (FeSi). Lime and calcium (Ca)-Al would be added for fluxing, as well as dust recycled from the baghouse. The mixture would be thoroughly blended, loaded into a refractory lined vessel and ignited. Combustion fumes and dust would be collected through a hood and filtered through a high temperature baghouse. After 24 hours, the metal solidifies and cools and would be lifted out with crane operated tongs. The remaining slag and sintered sand on the metal button would be knocked off. The alloy would be quenched in water and allowed to cool for two to four hours. The button would be broken down by hand sledging or with a rock breaker to a size that could be fed to jaw and cone crushers for final size reduction and packaging. The slag would be processed to recover occluded metal shots and prills for recycling into future batches. The slag recovery process would include crushing and grinding, followed by gravity concentration. The slag, being a glassy material of the flux oxides, would be inert and suitable for waste disposal in the Class III landfill. **Prior to disposal in a Class III landfill, EML would characterize the slag, as required by applicable NDEP and EPA regulations.**

2.1.6 Tailings Storage Facilities

The TSFs would consist of two separate embankments constructed in phases, impoundments, tailings conveyance and distribution system, reclaim recovery systems, and tailings draindown recovery systems (Figure 2.1.15). Figure 2.1.5 shows the locations of the North and South TSFs.

The tailings production rate would range from approximately 21 to 23 million tons per year (tpy) for the 44 years of operation. The combined storage capacity of the TSFs is approximately 966 million dry tons. EML selected these two facility locations based on the analysis of multiple sites. This analysis is incorporated in the EIS as Appendix **B**.

The South TSF would have a capacity of approximately 790 million tons, which would equate to approximately 36 years of production. The North TSF would be constructed before the South TSF facility reaches capacity at Year 36, to contain 176 million tons, which would equate to approximately eight years of production.

The TSF embankment foundation and impoundment basin would be lined using a 60 mil (0.06 inch) linear low density polyethylene (LLDPE) geomembrane, with a coefficient of permeability (K) of 1×10^{-11}cm/s to provide fluid containment. This level of containment exceeds that required by the State of Nevada under NAC 445A.437 for facilities with ground water in excess of 100 feet.

The LLDPE geomembrane liner system would be covered with 18 inches of drainage material to provide a hydraulic break between the tailings and liner system and to provide puncture protection for the liner.

The tailings slimes would essentially act as an extended liner system above the LLDPE geomembrane liner with inherent permeability ranging between **1 x** 10^{-6} and **1 x** 10^{-7} cm/s. Details of the TSF such as design drawings, technical specifications, and an operations and maintenance manual would be issued to NDEP and the BLM for review prior to construction. The design report was submitted as part of the Plan.

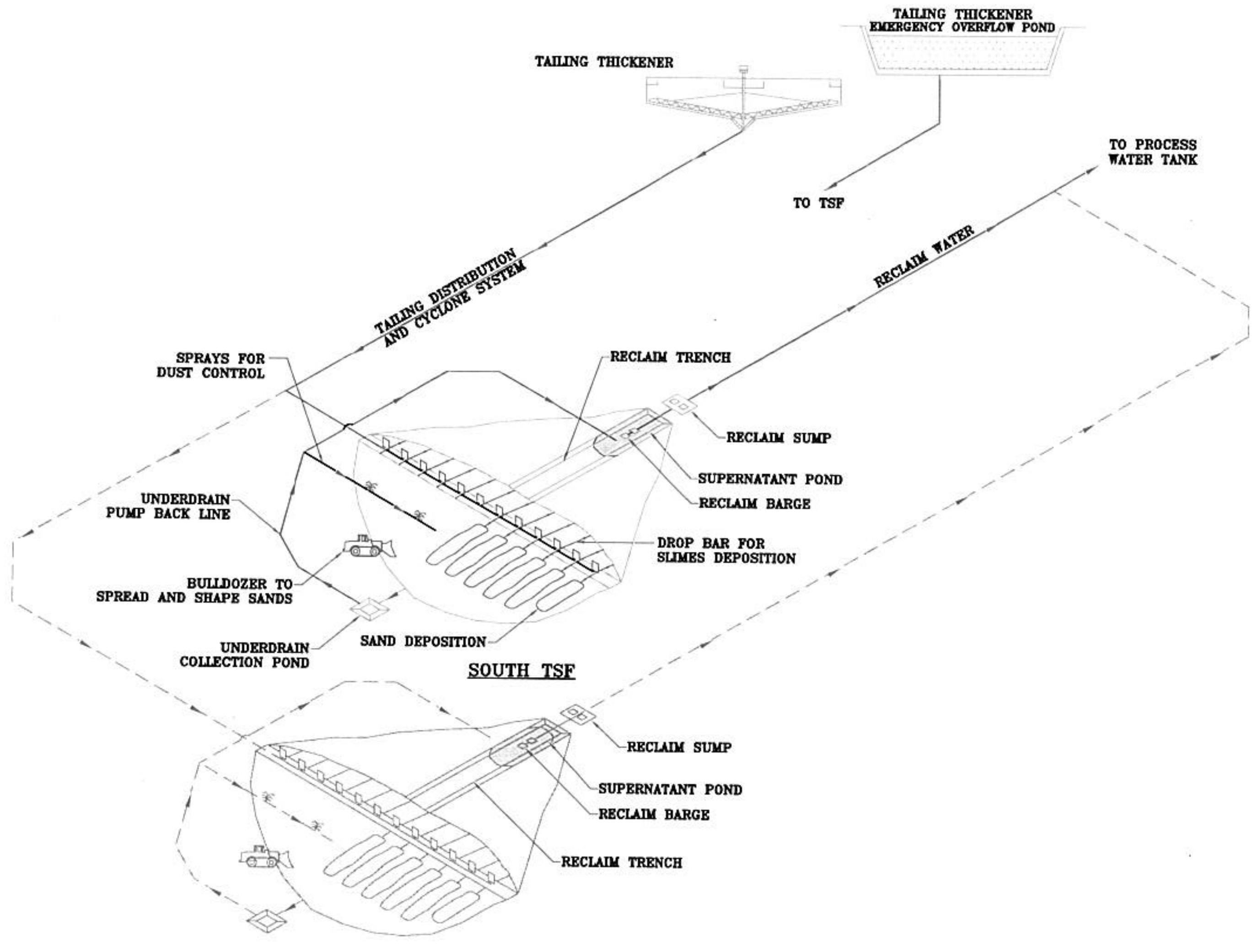
Water from the impoundment would be continually recycled back to the process stream during operations. Some residual reagents would be present and would be recycled back to the process stream in the reclaimed water.

Slope stability analyses were conducted in support of the conceptual design of the Mount Hope TSF embankment. This assessment examined the stability of the proposed South TSF ultimate embankment under both static and seismic loading conditions. The South TSF was selected for this assessment because the embankment is appreciably higher than the North TSF embankment, with all other factors generally being equal. As shown in the assessment, the proposed facility is stable under static loading conditions since the computed values exceed the prescriptive factors of safety. Factor of safety is defined as the ratio of forces resisting slope movement to the forces driving slope movement. Thus, a slope with a factor of safety greater than 1 is considered stable. For engineered slopes, the design engineer or regulations establish minimum acceptable factors of safety greater than or equal to 1 to account for conditions such as variability in the strength of materials comprising the slope. Static factor of safety refers to the factor of safety of a slope under normal loading conditions. Probabilistic and deterministic methods were used in the seismic hazard analysis. The seismic design parameters for the 1,100-year return period event for operational conditions were determined using a probabilistic analysis.

2.1.6.1 Tailings Conveyance and Distribution System

Tailings from the flotation circuit would flow by gravity and be distributed to two tailings thickeners operated in parallel. Thickener overflow would flow by gravity to the thickener overflow tank. Thickener underflow would be pumped to the tailings impoundment. A reclaim line would run parallel to the tailings line. The average tailings underflow would be approximately 50 percent solids.

An access road would typically be constructed parallel to, and upgradient from the lines, separated by a berm. The tailings line would be comprised of two **24**-inch diameter pipes. The reclaim line would be an approximately 36-inch diameter high density polyethylene (HDPE) pipe. An emergency spill trench would be constructed downgradient from the lines, to direct any release to adjacent spill ponds. A storm water diversion channel would be constructed upgradient from the road, with the design based on the 100-year, 24-hour storm event.



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Schematic Tailings Storage Facilities

Figure 2.1.15

Coarse tailings material would be required as construction material for the tailings dam. A cyclone classification system would be installed to separate the coarse tailings fraction from the mill tailings stream. The underflow (coarse fraction) from the cyclone classification system would be deposited on the embankment to construct the embankment raises, and the overflow would be deposited into the TSF impoundment as slimes.

2.1.6.2 Foundation Preparation

Prior to construction, the embankment and impoundment foundation surfaces would be cleared and stripped of roots, stumps, and growth media. Growth media would be stockpiled outside of the ultimate impoundment footprints to prevent disturbance and managed according to the growth media salvage protocols in Section 2.1.14.9. The TSF foundation surfaces would be shaped and smoothed prior to liner installation.

Slash from large trees, shrubs, and roots that are encountered during growth media salvage operations would be mechanically separated from growth media as feasible. This slash material would be stockpiled separately from the growth media where it may be burned, used by the public as fire wood, used in final reclamation as habitat enhancements, or hauled off-site to an approved landfill.

2.1.6.3 Embankments

The starter embankment sections for both the South and North TSF sites would be constructed of compacted random fill and rock fill for startup operations. Figure 2.1.16 presents typical embankment sections and details. Cycloned sand raises would be placed above the earthen starter embankment crest to the ultimate height. A toe berm would be constructed at the downstream limits of the ultimate cycloned sand embankment. An embankment underdrain system would be constructed in the downstream sand embankment section with finger drains for routing drainage to a collection pond. A double textured 60-mil LLDPE geomembrane would extend beneath the embankment.

The starter embankment has been sized for approximately eight months of storage capacity, with upstream and downstream slopes of 2.5H:1V. The crest width is designed to be approximately 30 feet wide to accommodate cyclone dam building and vehicle/equipment access as well as practical considerations for traffic and safety during construction.

Cyclone underflow, the slurry that discharges from the bottom of the conical-shaped cyclone, would be directed to the embankment footprint for use in dam construction. These primarily sandy materials would be spread and compacted to provide structural stability for the embankment. Raises above the starter embankment would be constructed without a lined face. Cyclone embankments are widely used in numerous mineral commodity operations on all continents, except Australia. Examples in the western U.S. include Robinson, Morenci, and Bingham Canyon.

2.1.6.4 Tailings Impoundment

The tailings impoundment area, like the embankment, would be constructed in phases. A starter facility with eight months of storage capacity would be initially constructed, followed by subsequent phases of construction completed in order to maintain at least one year's production.

The impoundment area foundation would be cleared, stripped of roots and stumps, stripped of growth media, smoothed, and underlain with a 60-mil LLDPE geomembrane. An 18-inch thick nominal drainage blanket and solution collection piping system would be placed over the geomembrane in the basin and embankment foundation. The drainage blanket material would be graded to prevent piping of fines from overlaying tails.

The solution collection piping system at the base of the drainage blanket would consist of a series of perforated smooth interior corrugated pipes designed to collect and remove solution that emanates from the tailings. The collected solution would be conveyed to the underdrain collection pond.

2.1.6.5 Tailings Pond and Reclaim Water System

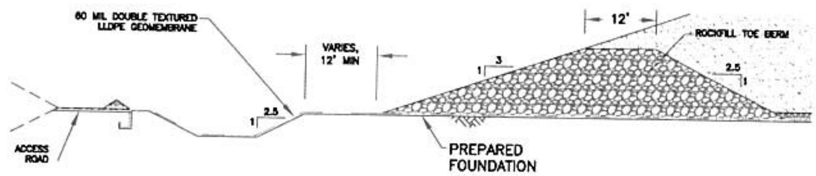
A reclaim trench would be constructed in the most prominent drainage within the impoundment basin to allow confinement of the waters liberated from the slimes in a supernatant pool within a limited area (Figure 2.1.17). The reclaim trench would have a 150-foot bottom width and would be excavated to a depth of 30 feet. The normal depth of the supernatant pool within the reclaim trench would be ten feet. The design features of the reclaim trench would be similar to the tailings basin area except that a retarding layer, consisting of ballasted 40 mil polyvinylchloride geomembrane, approximately 1,000 feet on either side of the center line, which prevents direct communication of ponded process solution with the drain layer.

At the low point of the basin and reclaim trench, the perforated smooth wall corrugated pipe system connects to solid HDPE piping, which would be encased in reinforced concrete through the embankment. The concrete encased pipe would allow a flow path for underdrain solutions from the tailings basin reclaim trench and embankment collection areas to an underdrain collection pond. The proposed concrete encasement would be designed to withstand the load of the ultimate TSF embankment and to protect main collection headers from capacity loss due to pipe deflection.

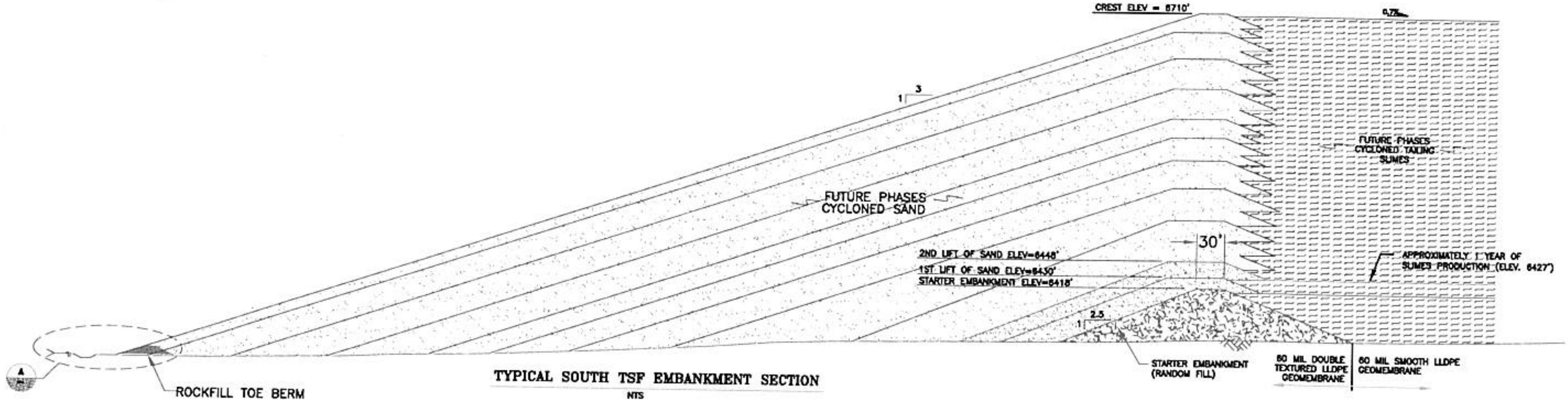
Water would be reclaimed from the tailings impoundment pond with a reclaim water system consisting of vertical pumps mounted on barges. The water would be pumped to an on shore booster station. The reclaim water system would supply water to the tailings cyclone classification system and the process water tank. Figure 2.1.5 shows the locations of the reclaim line.

2.1.6.6 Underdrain Collection Pond

Two underdrain collection ponds, Phase 1 and Phase 2, would be constructed at the South TSF, and a single underdrain collection pond would be constructed at the North TSF. The Phase 1 pond would be constructed prior to startup, and the Phase 2 pond would be constructed during the fourth year of operation. The underdrain ponds would collect both underdrain seepage and



A ULTIMATE EMBANKMENT TOE DIVERSION CHANNEL SECTION
NTS



TYPICAL SOUTH TSF EMBANKMENT SECTION
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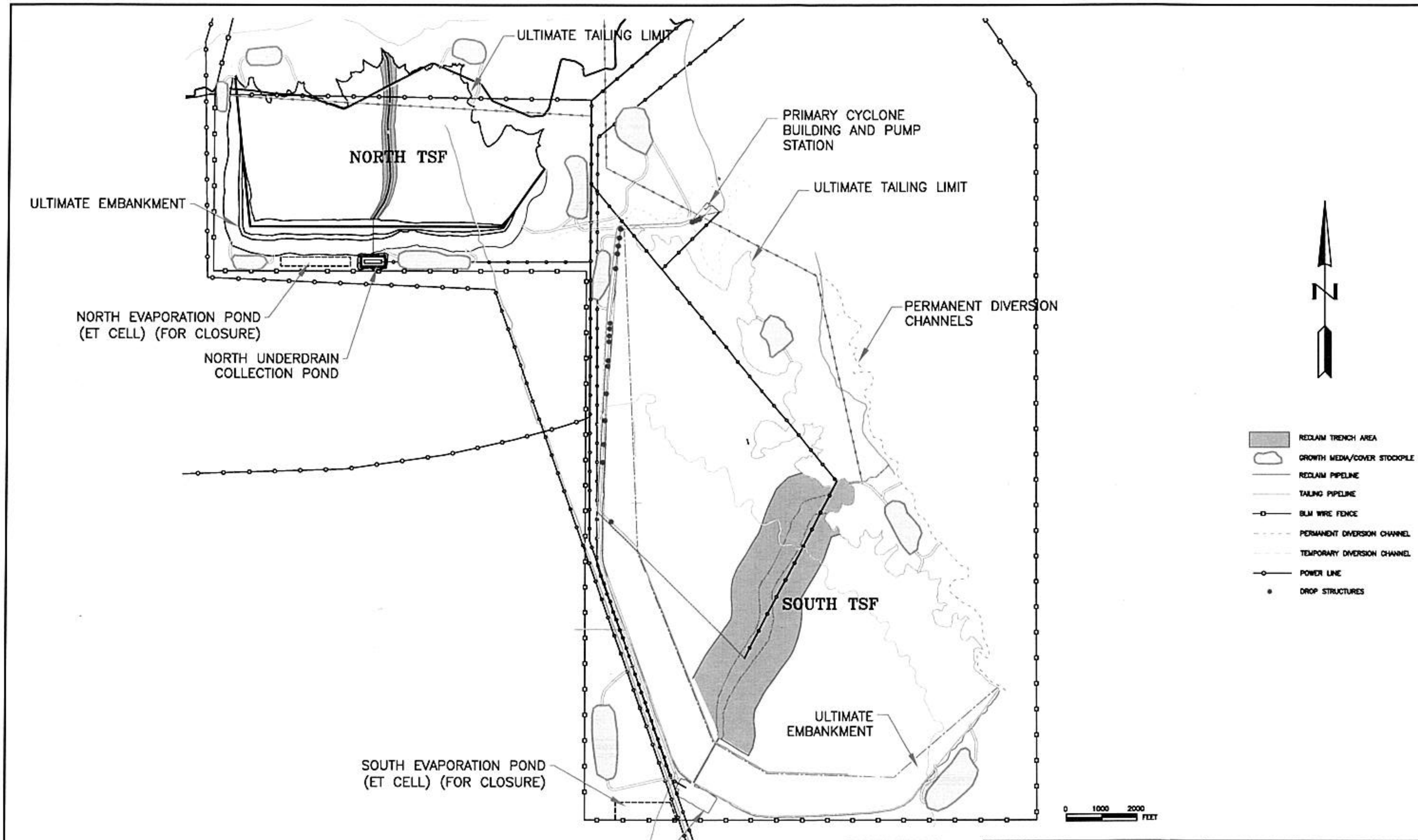
Tailings Storage Facility Typical Embankment Section and Details
Figure 2.1.16



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Tailings Storage Facility and Reclaim Slot Locations

Figure 2.1.17

stormwater runoff from the TSF embankments. The underdrain system would allow for continuous collection of underdrain solution flow from the South TSF site while the North TSF is in operation and the expansion is being constructed.

The Phase 1 pond would be sized to store approximately 4.0 million gallons of operating volume plus 1.0 million gallons of contingency operating volume, 2.1 gallons for the flow generated from 24 hours of drain down, and 6.1 million gallons generated by the 100-year, 24-hour storm event (2.83 inches). The total volume of the Phase 1 pond would be 13.2 million gallons which does not include the capacity for three feet of freeboard. With freeboard the total capacity would be 15.6 million gallons.

The Phase 2 pond would add 33.3 million gallons of capacity to the pond system. The combined capacity of the Phase 1 and Phase 2 ponds would be 4.0 million gallons of operating volume, 6.9 million gallons for 24 hours of drain down from the ultimate TSF basin, and 34.8 million gallons generated by the 100-year, 24-hour storm runoff from the downstream slope of the TSF ultimate embankment. The total volume of both ponds would be 46.2 million gallons. The Phase 2 pond design provides three feet of freeboard and a spillway connecting both ponds.

The design for the underdrain collection ponds includes a primary 80-mil HDPE liner and a secondary 80-mil HDPE liner with a leak collection and recovery system (LCRS) installed between the liners. The LCRS would consist of geonet, perforated four inch diameter corrugated polyethylene pipe, and a gravel sump encapsulated in ten **ounces per square yard** (oz/yd^2) geotextile. The sump would be located at the engineered low point of the pond where potential leakage could be collected. An HDPE pipe with a slotted end section would be installed along the slope of the pond between the liners to provide access to the sumps for a submersible pump.

Evacuation of water from the underdrain pond would be via a large-capacity pump system installed in a geomembrane-lined reclaim sump adjacent to the Phase 1 pond. The liner system of the reclaim sump would be the same as underdrain ponds. An independent LCRS would collect and monitor potential leakage through the reclaim sump primary liner. The water reclaimed from the underdrain ponds would be pumped to a collection tank located near the northwest side of the TSF and would be used for dust suppression on the exposed surface of the embankment or returned to the mill for process water.

2.1.6.7 Tailings Characterization and Solution Chemistry

Information on tailings solid and solution chemistry is provided in the Mount Hope Project Tailings Characterization Report (SRK 2008b). Tailings solids have been characterized by acid generation and metal leaching assessment. The predicted chemistry for the tailings indicates that tailings leachate has potential for elevated concentrations of Al, cadmium (Cd), fluoride, and manganese (Mn). **Total dissolved solids** (TDS) may also be elevated over time due to evapoconcentration of salts in the supernatant pool. The AGP of the various ore types is directly proportional to sulfide content. In general, acid generation from the tailings would be low. A summary of these characteristics is provided below.

No clear relationship was observed between pyrite and molybdenite abundance, although both generally occur in the tailings. From the mineralogy of the samples, some of the sulfide present in the tailings would be encapsulated in silicate minerals (mainly potassic feldspar and illite). As such they would be less available for oxidation and acid generation; and, as a result, the actual reactivity is likely to be considerably less than that indicated by an empiric approach like ABA. By contrast, carbonate minerals would be present as a cement or matrix mineral in the main fabric of the tailings. With sulfides in the tailings, it is likely that some secondary minerals containing Fe, arsenic (As), Cu, Pb, and Zn would form over time.

Tailings whole rock analysis results indicate elevated concentrations of antimony (Sb), As, Cd, Mo, tin (Sn), tungsten (W), and Zn at three or more times above average crustal composition as defined in Hem (1985). Lithium (Li), Mn, S, and thalium (Th) would be elevated but would be less than three times the average crustal abundance. These elements are enriched within the entire Mount Hope mineralizing system.

The S chemistry is low in the tailings compared to unprocessed ore samples, indicating efficient removal of molybdenite, the most common and abundant sulfide mineral in the deposit. Buffering material is also scarce in the tailings as a result of low carbonate content.

The AGP of the various ore types is not directly related to the rock type or the alteration type but is directly proportional to sulfide content. Typically, tailings samples with S above 0.15 percent (by weight) would be predicted to be net acid generating (NAG), due to the negligible carbonate content. In general, acid generation from the tailings is low due to the low sulfide content of the molybdenite ore and the fact that the majority of sulfide in the ore is molybdenite.

MWMP leachates show lower pH **(potential of Hydrogen)** (acidity) and elevated concentrations of Sb, Cd, fluoride, Mn, mercury (Hg), and nickel (Ni); however, the majority of results show low TDS leachate with **sulfate (SO_4)** less than 150 milligrams per liter (mg/L) (see Table 3.3-2).

The humidity cell tests (HCT) and NAG results show similar low reactivity of the tailings, but both tests indicate that over time the tailings would become acidic. This is most likely due to the difference between the reaction rates of the buffering minerals and sulfide oxidation rates in the tailings.

HCT leachate values were compared to NDEP comparative values. Comparison to the NDEP values is not strictly applicable because the tailings impoundment would be a lined, zero discharge facility. However, Al, Sb, Cd, fluoride, Mn, Mo, and SO_4 all show concentrations that would be above comparative values (see Table 3.3-2).

The low amount of metals leached from the HCT confirms the interpretation that the majority of commonly regulated elements would be encapsulated in the tailings solids and would not be available for leaching under natural environmental conditions. Subsequent mineralogical and diagnostic sequential extraction tests of the HCT residues have confirmed the sulfides would be largely encapsulated in coarse grains of quartz and feldspar.

The geochemical evolution of the humidity cells is interpreted to represent the transition over time of the following:

- Rinsing of soluble secondary minerals and sorbed species (mineral species with weak chemical bonds);
- Buffering by secondary minerals; and

- Sulfide oxidation and carbonate buffering.

These reactions would be limited by low sulfide content in the tailings and by the encapsulation of much of the sulfide within gangue minerals. Using a simple mass balance approach to predicting tailings pore water chemistry, the only elements that would be elevated include Al, Sb, fluoride, Fe, and Mn.

The predicted source term chemistry for the tailings indicates that any tailings leachate has potential for elevated concentrations of Al, Cd, fluoride and Mn. The TDS may also be elevated over time due to evapoconcentration of salts in the supernatant pool. However, the overall low sulfide content of the tailings limits the concentration of SO_4 that can be generated from the tailings.

The geochemical characterization work completed indicates that pore water chemistry in the tailings would potentially contain several constituents above applicable standards applied by NDEP. This list includes Al, Sb, fluoride, Fe, and Mn. In addition, As, Cd, Mo, and SO_4 would be also present.

In order to mitigate accumulation of water in the tailings following closure and potential generation of low quality pore water, the tailings would be covered with a low permeability cover of either alluvium or growth medium, or a combination of both, to minimize long-term infiltration into the tailings impoundments. This would effectively reduce the quantity of pore water generated and would reduce the potential environmental risk from the tailings post-closure.

2.1.6.8 Closure

The North and South TSFs would undergo a draindown period, during which time, the tailings would consolidate to allow equipment access for recontouring. Consolidation is expected to take a number of years while seepage is actively evaporated. The final disposition of the draindown fluid would depend on the water quality and other site-specific environmental factors. Possible long-term management scenarios could include direct evaporation or ET. Specifics on the tailings closure are included in Section 2.1.16.8.3.

2.1.7 Project Infrastructure

2.1.7.1 Pipeline Utility Crossing

The tailings and reclaim line configurations described in Section 2.1.6.1 would be applied to the majority of the tailings and reclaim line sections. However, where the tailings and reclaim lines cross the Pony Express Historic Trail, additional **design elements have been provided. These additional elements provide protection from potential release of process water while minimizing visual impacts within a 900-foot wide buffer along the Pony Express Historic Trail.**

To minimize visual impacts, these lines would be buried where they are within 450 feet of the Pony Express Historic Trail. As a means of preventing discharge in the event of a line break, the tailings lines would be encased inside an approximately 36-inch diameter pipe and the reclaim line in an approximately 24-inch diameter pipe, and both would be placed below grade through the 900-foot corridor. This double containment would begin at a topographic crest where the pipe grades would begin flowing toward the Pony Express Historic Trail corridor. The lines would continue underground for 450 feet on each side of the Pony Express Historic Trail where they would surface and return to the trench configuration as previously described. This trench would be connected to an emergency spill pond.

In the event of line rupture within this area, the outer containment pipe would be filled with tailings or reclaim water and would discharge where the lines surface and report to the emergency spill pond. Once a leak is detected, the lines would be shut off, repaired, and reburied. The emergency spill pond would be cleaned and materials hauled to the tailings impoundment. No storm water diversion channels would be constructed at the low point where the pipes would be buried; flood waters would be allowed to flow over the road and buried lines. Lines would be buried deep enough to ensure they would not be exposed through scouring during flood events. The emergency spill pond would be designed to contain the 100-year, 24-hour storm event.

2.1.7.2 Electrical Power and Generator Backup

The Project would require up to 75 megawatts (MW) of power. EML would construct an approximately 24 mile long 230-kV powerline within and adjacent to the existing 500-foot wide Falcon-Gondor utility corridor as shown on Figure 2.1.7. The proposed powerline would originate at Mt. Wheeler's Machacek substation, located approximately **0.5 mile north of the Eureka Townsite boundary. The specific agreements for providing energy and maintaining the 230-kV powerline have not been finalized. However, these** services that are specific to EML's requirements would be fully funded by EML.

The existing Machacek Substation is fenced (approximately 8.25 acres), and would be upgraded to accommodate the transmission of power for the Project. Upgrades would consist of **a** ring bus, 230-kV circuit breakers, 230-kV air break switches, associated structures, and concrete foundations. The Machacek Substation upgrades, including **a** full ring bus design, would allow isolation of the proposed facilities from other consumers for line faults. This arrangement would likely improve the service reliability for the Eureka community, including Diamond Valley, and the power that would be provided for the Project would not affect the sufficiency of power currently provided to the area.

The Mount Hope 230-kV powerline would run parallel to the existing Falcon-Gondor powerline for the majority of its routing, but would have its own ROW **(first a temporary construction ROW and then a separate ROW for the operation of the powerline)**. The power poles would be steel structures with a rust stained surface, similar to the poles of the existing 345-kV line. These poles would be placed approximately 150 feet (centerline to centerline) from the existing Falcon-Gondor powerline. The power would be transmitted in three phases necessitating three separate conductors, plus one static line. Based on Avian Power Line Interaction Committee recommendations, adequate spacing between conductors would be implemented. Appropriate **applicant committed practices**, including perch deterrents, would be included in the design as identified by the BLM through the POD (Electrical Consultants, Inc. [ECI] 2008). The 230-kV line would enter the Project Area at the southern boundary near the South TSF and tie into a substation located in the mill area (Figure 2.1.5).

The existing Falcon-Gondor powerline would be rerouted as a result of constructing the North TSF, which would not occur until more than 30 years into mine operations. The powerline location could vary based on detailed engineering.

The fresh water wells would require a separate 24.9-kV line stepped down to a voltage compatible with the pump system. This powerline would originate at the mill substation and follow the routes shown on Figure 2.1.7. **Within the greater sage-grouse lek two-mile buffer areas, the powerline would be constructed below ground. To further protect greater sage-grouse, the wellfield powerline may also be buried in areas outside of the two-mile buffer around active leks. However, as currently designed, the powerline outside of these areas would be constructed above ground. Above-ground powerlines would be equipped with perch deterrents.**

Two backup diesel generators, each capable of producing 1,000 kilowatt (kW) at 4,160 volts, would be located **in the vicinity** of the mill **and roaster**. These generators would provide sufficient power to **safely shut down the** plant in the event of a power outage. Final design for back up power and sizing of the generators is pending detailed design.

2.1.7.3 Site Layout and Support Facilities

Proposed support facilities would include access roads, laydown areas, maintenance and other support facilities. Figure 2.1.8 presents the site layout.

2.1.7.3.1 Support Facilities

Support facilities would include the mine and mill maintenance shops, laboratory, warehouse, administration buildings, and security buildings. These buildings would typically be insulated pre-fabricated or pre-engineered steel buildings. Heat would be provided by propane gas forced air **or electrical heaters** in the office and personnel buildings and propane gas radiant heat in the maintenance bays. Gas would be provided from individual propane tanks adjacent to each building. Air conditioning would be provided by electrical cooling units.

The truck shop would include five maintenance bays (three large bays and two intermediate to small bays) to support mobile equipment maintenance. In addition, the truck shop would have offices, a lunch room, locker rooms with showers, and crew meeting rooms. An enclosed truck wash facility would be located adjacent to the truck shop. Stationary water monitors would be used to clean mobile equipment. Wash water would be directed to a settling basin where water and solids would be separated. Water would be treated with an oil water separator and re-circulated. Solids collected from the settling basin would be tested and handled as petroleum contaminated soil, if necessary.

The mill maintenance building would house the process maintenance shops, office space, and the warehouse. An outside fenced storage area would be located adjacent to this building.

The laboratory would be located southeast of the roaster facility as shown on Figure 2.1.8. The laboratory would include separate areas for sample preparation, wet analysis, a metallurgical laboratory, a balance room, and offices.

Administration offices would be located near the security building as shown on Figure 2.1.8. These offices would house the reception area, offices for administrative staff, and meeting rooms.

The safety/security building would be located on the main access road approximately 300 yards from the administration building as shown on Figure 2.1.8. A gatehouse manned by security guards would be located next to the safety/security building. The safety/security building would include a first aid clinic and a meeting/training room. An ambulance and fire truck, staffed and operated by mine personnel, would be stationed at the safety/security building to respond to accidents and incidents. A helipad would be located nearby in the event a medical air evacuation is needed.

Septic systems and leach fields would be installed at the mill, truck shop, administration building, laboratory, and mill maintenance buildings for sewage. The biosolids would be pumped as necessary by a licensed septic waste hauler and transported to a licensed repository.

In the process, maintenance, warehouse, laboratory and administration areas, lighting would have screens to prevent the bulb from shining up or out, and would be located to avoid light shining onto adjacent lands as viewed from a distance. Within these areas lighting fixtures would be hooded and shielded, face downward, be located within soffits and directed on to the pertinent site only, and away from adjacent parcels or areas. Buildings would be painted in earth tones so they are compatible with the natural environment.

2.1.7.3.2 Petroleum Contaminated Soils

EML would submit a Petroleum Contaminated Soil Management Plan to the Nevada BMRR and BLM, describing how petroleum contaminated soils would be treated or disposed of at the mine. EML may also elect to ship petroleum contaminated soils off site to an approved disposal facility.

2.1.7.4 Sediment Control

Sediment would be controlled using best management practices (BMPs) during construction and operation. Management practices may include, but would not be limited to, diversion and routing of surface storm water using accepted engineering practices, such as diversion structures, sediment collection ponds, and rock and gravel covers.

Surface storm water from the plant yards would be directed through permanent collection channels to one of two collection ponds with capacities of approximately 6.5 million gallons and 500 thousand gallons. The collection ponds would be monitored in accordance with the Fluid Management and Monitoring Plan included in the Water Pollution Control Permit (WPCP) application (EML 2009a). Sediment removed from the collection ponds would be **used as fill or growth media, or placed in the WRDF** or in the TSF.

Storm water that has not contacted mining components would be diverted around the process area through permanent diversion structures.

The permanent diversion and collection structures would be sized for the 100-year, 24-hour storm event with additional capacity to allow less frequent maintenance and would have the capacity to safely pass the inflow design flood peak flow during operations and at closure.

Diversion channels associated with the WRDFs would be constructed to collect and divert non-impacted waters. Collection channels would be constructed to collect and contain potentially impacted water from within the facility footprints.

Permanent collection channels (Collection Channels No. 1 and No. 2) associated with the PAG WRDF would direct runoff to geomembrane lined ponds (Phase 1 and Phase 2), respectively located at the southern portion of the LGO Stockpile. The collection channel foundation surfaces would be prepared and lined with geomembrane. Other diversion channels would divert storm water that has not contacted mining components from the natural ground away from the PAG WRDF and the LGO Stockpile area. These diversion channels would be lined with geomembrane and riprap, and would be removed with the construction of the stockpiles beyond Year 5. All of the channels would be designed to carry estimated peak flows associated with the 100-year, 24-hour storm event.

Diversion and collection channels associated with the Non-PAG WRDF would be designed in stages around the footprint of the WRDF. They would be designed to convey the peak flow associated with the 100-year, 24-hour storm event. Most of the channels would be lined with a 60-mil HDPE geomembrane with outlet segments lined with riprap.

Riprap dams for the WRDFs would be associated with the PAG WRDF permanent collection channel and would be designed to block a portion of the channel so that sediments would be stored behind them in a basin. The sediment basins would be approximately **twenty** feet by ten feet and the dams would be approximately four feet high.

Sediment control structures would be located at the toe of each Non-PAG WRDF in drainages located at the outfall of the Non-PAG WRDF temporary diversion channels. They would be comprised of a rock berm placed across the drainage. The structures would be sized to contain the runoff volume generated from a 25-year, 24-hour storm event. Sediment control structures would be added or moved in stages with the growth of the WRDF.

Surface water diversion channels associated with the TSF would be constructed to direct surface water away from the tailings impoundments through channels and culverts. The channels would be both temporary and permanent. Permanent channels would remain throughout the life of the facility, and temporary channels would be removed with the construction of the phased expansions to the impoundment basin. At the time of construction of the TSFs' starter embankments, permanent diversions would be constructed at the limits of the planned ultimate footprint. This channel would intercept surface water from the catchment area located above the proposed TSF site. Temporary diversion channels would be placed within the ultimate tailings basin footprint to limit the runoff reporting to the tailings impoundment from the watershed that is between the permanent diversion channels and the active tailings area.

Sediment control structures associated with the TSF would be placed at several locations in drainages downstream of the TSF. The placement of sediment control structures for the North TSF would be determined closer to the date of construction.

2.1.7.5 Borrow Areas

Borrow areas would be located within the facility footprints. Borrow sources would be required for prepared subgrade materials, drainage materials, pipe bedding materials, road surfacing materials, retarding layer materials, closure cap materials, growth materials and riprap. If these areas would be unable to provide sufficient quantities of borrow material, other sites outside of the facility footprints would be identified and tested to determine the material properties and amount available, which would require a revision of the Plan and be subjected to additional environmental analysis. Depth of potential borrows would be expected to be between five and **twenty-five** feet. In cases where a borrow source would be constructed outside of a planned facility, the borrow area would be graded to drain. Borrow areas may be revisited over the mine life. Areas outside of the facility footprints that would be dormant for over 12 months would be seeded with an interim seed mix to control dust and erosion and to prevent the encroachment of invasive, nonnative species.

2.1.7.6 Fencing

EML would construct approximately 22 miles of BLM approved barbed wire fencing to prevent livestock and wild horses from entering the open pit, WRDFs, and TSFs. This fence would also limit and control public access to the Project Area. In areas where a higher level of security would be needed, eight-foot high chain link fences would be erected. Eight-foot chain link fences would be constructed around all collection ponds. Gates or cattle guards would be installed along roadways within the Project Area, as appropriate. **In the event that cattle enter the fenced area, EML would attempt to identify the brand and contact the owner. If the brand could not be identified, EML would notify grazing permittees adjacent to the Project. EML would assist in moving these animals out of the fenced portion of the proposed Project Area and would not harass these animals.** In areas where greater sage-grouse are likely to be present, perimeter fences would be equipped with flagging/flight diverters to increase visibility.

Figure 2.1.5 shows the approximate location of the BLM approved barbed wire fencing. Figure 2.1.8 shows locations of the eight-foot chain link fences. The fences would be monitored on a regular basis and repairs made as needed. BLM would be contacted immediately in the event that wild horses enter the Project Area. EML would assist, as requested, in moving these animals out of the Project Area.

2.1.8 Haul and Access Roads

Haul roads would be nominally constructed with an average 120-foot wide running width and a maximum gradient of approximately ten percent. The roads would be constructed according to MSHA standards, which include a berm at least the height of half the wheel height of the largest vehicle utilizing the road. Runoff from haul and access roads would be collected and routed to sediment retention ponds as necessary.

Secondary roads would generally be approximately 20 feet in width. These roads would also be bermed in accordance with MSHA regulations. BMPs would be used where necessary to control erosion.

2.1.9 Access and Transportation

A primary access road about 32 feet wide (24 feet running surface width plus four-foot wide shoulders) would be constructed to connect the proposed Project Area with SR 278. Following Project construction, EML may pave this primary access road.

To enhance safety, turn and acceleration lanes would be constructed within the existing ROW for SR 278 at the Project entrance. A deceleration/right turn lane would be constructed for southbound traffic beginning north of the Project turnoff and would be extended south of the turnoff to provide an acceleration lane for the southbound traffic. A deceleration/left turn lane would be constructed for northbound traffic beginning south of the Project turnoff, and an acceleration lane would be constructed beginning at the Project turnoff and extending north.

To remove mud and dirt from highway vehicles, an oversized cattle guard system would be installed and maintained on the main access road. EML would install a vehicle wash to reduce the amount of mud and dirt that would be tracked onto SR 278 if, in cooperation with Eureka County, area residents, the BLM, and the Nevada Department of Transportation (NDOT), it is determined to be necessary.

A secondary Project access road would be constructed one mile to the north of the primary access road, principally for the delivery of equipment and materials.

Access into the Project would be limited to the single entry point at the main gate where the access road from SR 278 would reach the Project perimeter fence. No public access to the Project from the Kobeh Valley side would be provided. However, once inside the Project boundaries, EML personnel and authorized contractors would be allowed to enter Kobeh Valley from the west side of the Project through secured gate(s) to conduct Project-related activities in the well field and other areas as needed, and to re-enter the Project through the secured gate(s).

During construction, materials transported to the Project would include gravel currently stockpiled at the privately owned Romano Ranch that would be used as aggregate in concrete. The Romano Ranch is located in Diamond Valley, and aggregate would be hauled by truck approximately seven miles on the Sadler Brown gravel road to the intersection of SR 278, then north approximately three miles to the main access road.

Transportation activities associated with the Project would include construction of facilities that would result in associated traffic. The amount of traffic has been estimated based on the amount of equipment and materials that would be delivered to the site and the number of construction employees that would travel to the site. The estimated traffic, on a monthly, round-trip basis, is outlined below and presented in Figures 2.1.18, 2.1.19, and 2.1.20. Figure 2.1.18 shows the total estimated traffic associated with the Project construction. Figure 2.1.19 shows the estimated truck traffic associated with the Project construction. Figure 2.1.20 shows the estimated car, pickup truck, van, and bus traffic associated with the Project construction.

The construction period is defined as the 24 month-long period of construction that would be necessary to allow Mo production from the process facilities. The start of construction would be dependent on the time at which a favorable ROD would be obtained, plus time (30 to 90 days) for the Project financing to be finalized and the funds to be accessible. Based on current information, construction beginning in March 2013 and Mo production in March 2015 is planned. Thus, the 24-month construction period, currently anticipated at March 2013 through February 2015, is represented by Months 4 through 27 on the following figures. Some equipment and materials would be transported to, and staged at, the Project Area prior to start of construction. Additionally, construction activities would take place after Mo production begins. To provide a complete and conservative assessment of traffic impacts, traffic associated with pre-construction deliveries and post-start-up construction is included in the estimate and depicted in the figures.

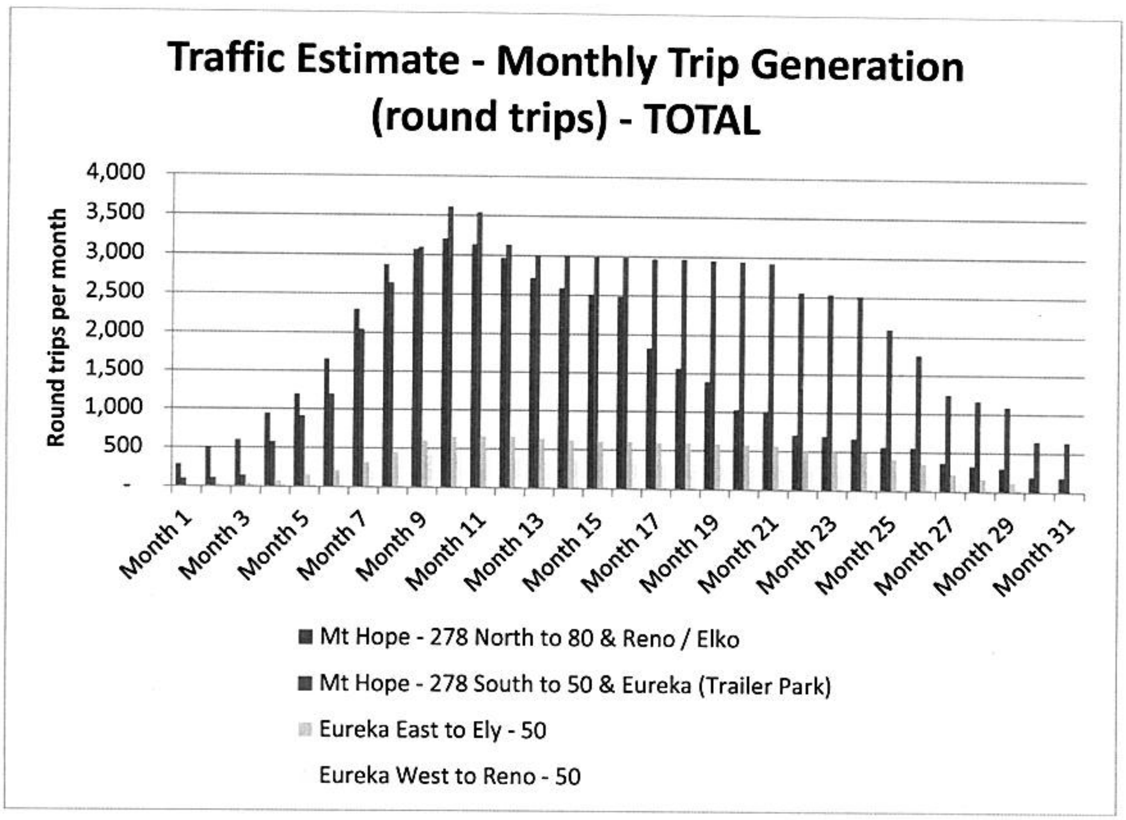

Figure 2.1.18: Estimated Total Project-Related Construction Traffic

Round trips are segregated on the basis of the likely point of origin. Traffic that would originate from points south of the Project is segregated into trips that would originate at points west of the U.S. Highway 50 - SR 278 intersection, trips that would originate at points east of the U.S. Highway 50 - SR 278 intersection, and trips that would originate in Eureka or Diamond Valley (traffic identified in the graphs as originating in the town of Eureka includes traffic that would originate in Diamond Valley).

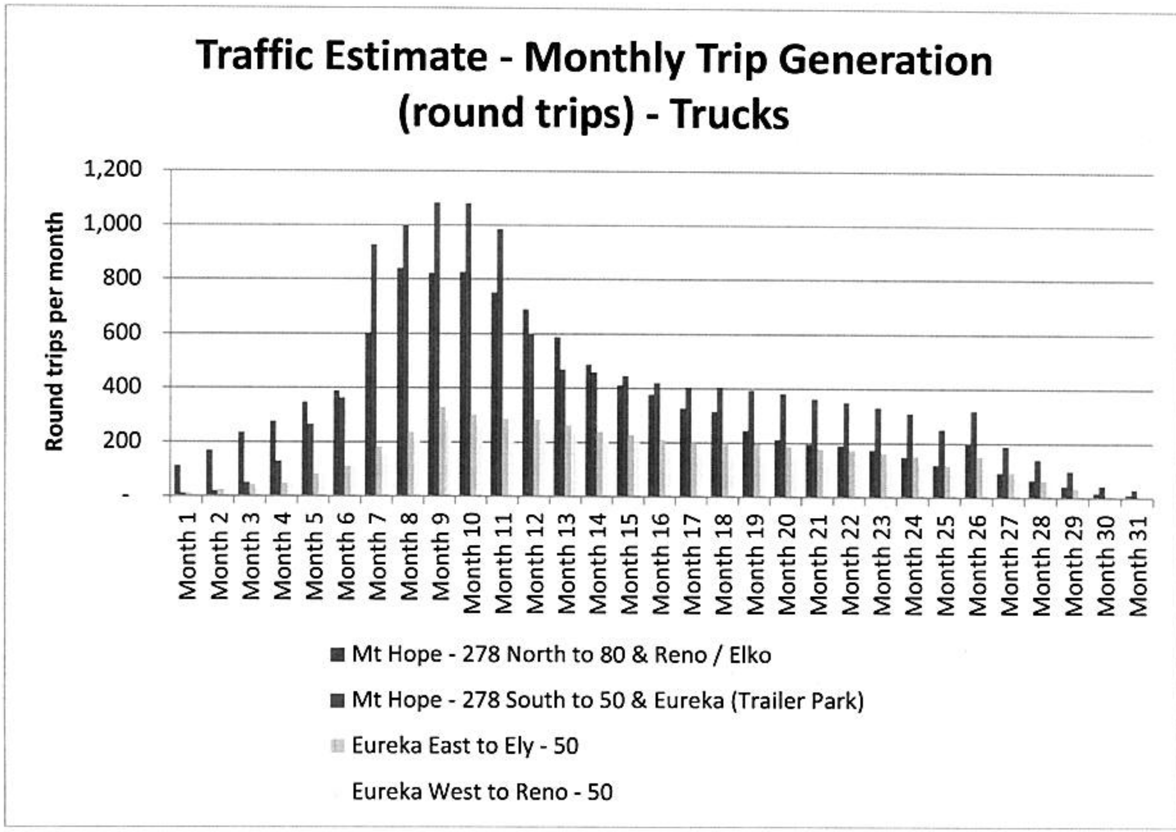

Figure 2.1.19: Estimated Truck Project-Related Construction Traffic

The majority of truck traffic would originate from the north, while the majority of traffic originating from the south would be associated with commuting construction labor (busses, vans, pickup trucks, and autos). A significant portion of truck traffic identified as originating in Eureka consists of aggregate that would be hauled from Diamond Valley, and these trucks would not actually travel through the town of Eureka. Trips originating at points east of the U.S. Highway 50 – SR 278 intersection would travel through the town of Eureka.

Estimated peak traffic counts are projected to occur in Month 10 of construction, currently expected to be September 2013. During this month, the estimated traffic would include approximately 3,600 round-trips (trucks and commuting labor) from Eureka (and Diamond Valley), approximately 3,200 round-trips from the I-80 corridor, approximately 650 round-trips from the east on U.S. Highway 50 and approximately 400 round-trips from the west on U.S. Highway 50.

For the Project-related operational transportation there would likely be truck, car, pickup truck, van, and bus traffic. The truck traffic would result in approximately 26 daily truck trips, including the toll roasting. In addition, there would be an undetermined increase in passenger (car, pickup, van, and bus) vehicle trips per day on SR 278. Some Project-related traffic would utilize U.S. Highway 50.

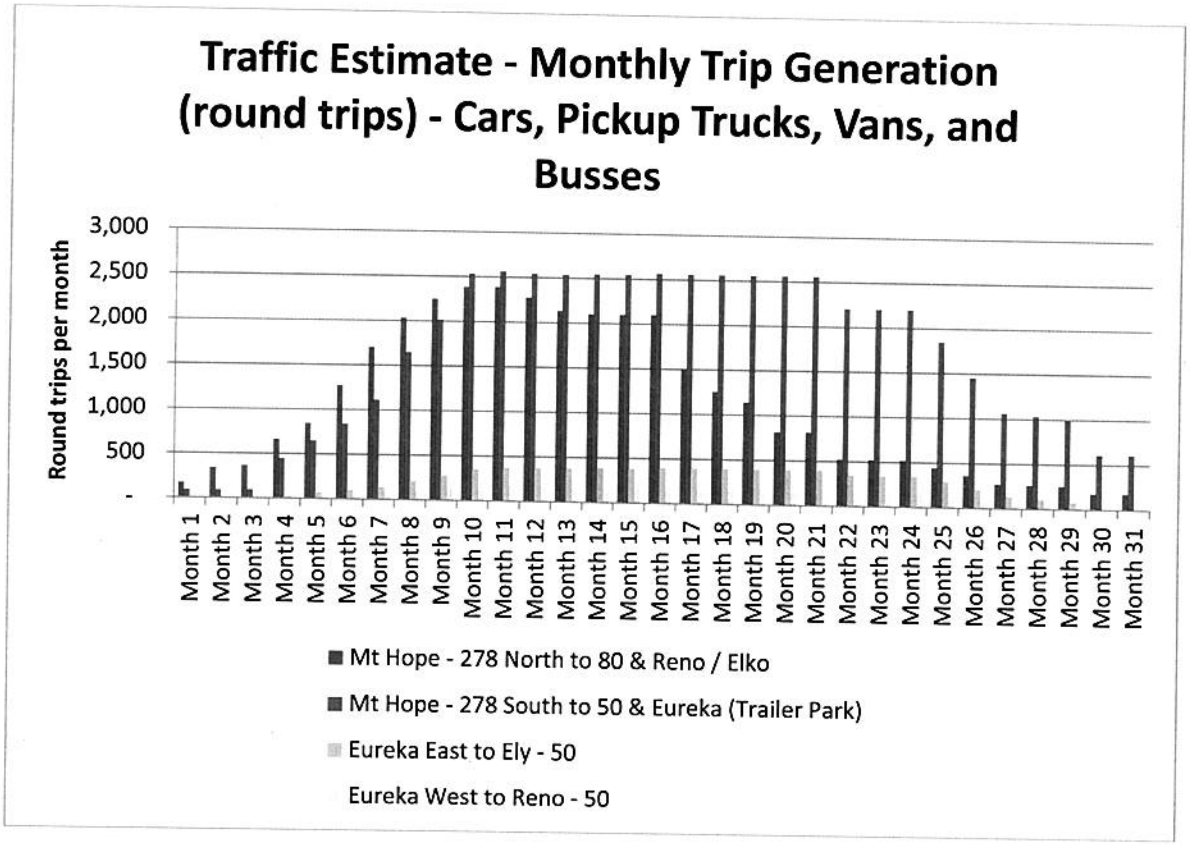

Figure 2.1.20: Estimated Car, Pickup Truck, Van, and Bus Project-Related Construction Traffic

2.1.10 Safety and Fire Protection

The Project would operate in conformance with all MSHA safety regulations (30 CFR 1-199). Site access would be restricted to employees and authorized visitors. Fire protection equipment and a fire protection plan would be established for the Project Area in accordance with State Fire Marshal standards.

A separate fire suppression water system would be installed to provide service to the buildings. Fire hydrants would be placed at regular intervals around the buildings. The buildings would have sprinkler systems and hand held fire extinguishers available in accordance with MSHA regulations and industry standards. A fire truck would be located on site for use in structure and equipment fires. Employees would be trained in the use of hand held fire extinguishers and alarm systems.

EML or its contractor would have emergency medical personnel on site during construction. EML would have emergency medical personnel on site during operations and would maintain a licensed ambulance with licensed driver for transportation in the event of an incident that required this level of attended emergency transportation. However, should a medical emergency occur, it is recognized that, depending on the specifics, Eureka

County Emergency Medical Services (EMS) may be contacted for assistance with medical response or transportation.

Emergency response vehicles and a trained mine rescue team would respond to fire and medical emergencies at the site. An ambulance would be located at the safety/security building to respond to on-site emergencies. A separate radio frequency or emergency protocols would be put in place for use. A helipad located near the safety/security building would be available for use by emergency aircraft. EML **intends to have agreements with the Eureka County Fire and Ambulance Service regarding mutual assistance, and has initiated discussions with this entity regarding emergency response cooperation.** EML anticipates that local and regional agencies would maintain sole responsibility for response to incidents outside of the Project boundary. Mine rescue and fire response teams may be available to assist with off-site response if requested by agency personnel or others.

2.1.11 Chemical Use and Management

2.1.11.1 Fuels, Lubricants, and Reagent Storage

A satellite fuel storage depot would be located at the truck shop. This fuel depot would include gasoline and diesel above ground tanks for fueling of small and intermediate vehicles. Secondary containment would be designed to hold 110 percent of the volume of the largest tank. Fuel would be delivered via tanker truck. Drivers off-loading fuel would be certified and trained. Appropriate hose fittings would be located within the containment to collect spilled fuels. A sump would be located at one end of the containment so spilled fuels could be pumped from the containment using a portable pump.

Other lesser quantities of hydrocarbons and regulated materials would be located at the truck shop, warehouse, and mill area. These would be kept indoors in proper storage and secondary containment systems. Table 2.1-5 shows the fuels and reagents that would be used, approximate quantities to be stored, average usage rates, and the numbers of monthly shipments. The total monthly truck trips to deliver chemicals to the Project would be approximately 574, or approximately 19 per day.

Table 2.1-5: Monthly Shipments of Reagents, Volumes, and Shipments

Reagent	Storage	Amount/ Delivery	Trucks/ Month	Approximate Consumption per Day
Diesel Fuel (for off road use)	Three 100,000-gallon tank	6,600 gallons	185	40,000 gallons
Gasoline	10,000-gallon tank	6,600 gallons	2	400 gallons
Highway Diesel	10,000-gallon tank	6,600 gallons	2	400 gallons
Automatic Transmission Fluid	5,000-gallon tank	1,000 gallons	1	30 gallons
Engine Oil	5,000-gallon tank	2,000 gallons	2	125 gallons
Engine Oil Spare	5,000-gallon tank	2,000 gallons	2	125 gallons

Reagent	Storage	Amount/ Delivery	Trucks/ Month	Approximate Consumption per Day
Hydraulic Fluid (synthetic)	5,000-gallon tank	1,000 gallons	1	30 gallons
Gear Oil	5,000-gallon tank	1,000 gallons	1	30 gallons
Antifreeze	5,000-gallon tank	1,000 gallons	1	30 gallons
Used Oil	7,500-gallon tank	1,000 gallons	1-	30 gallons
Used Antifreeze	7,500-gallon tank	6,000 gallons	1	125 gallons
Propane	Three 30,000-gallon tanks	10,000 gallons	11	3,600 gallons
Ammonium nitrate	Three 70-ton silos	38 tons	41	52 tons
Ammonium Hydroxide	24,000 gallons	2,800 gallons	6	1,000 gallons
Quicklime-Mill/Leach	Two 500-ton silo	22 tons	205	150 tons
Milk of Lime Mixing Tanks	Two 30,000-gallon tanks	-[1]	-	160,000 gallons
Diesel Fuel - Flotation	Two 25,000-gallon tank	6,600 gallons	17	3,600 gallons
Methyl Isobutyl Carbinol (MIBC)	20,000-gallon tank	6,600 gallons	2.5	540 gallons
Fuel Oil No. 2 / MIBC Blend	20,000-gallon tank	-	-	490 gallons
Ferric Chloride at 40 percent weight	Two 25,000-gallon tank	3,500 gallons	51	6,000 gallons
Hydrochloric Acid at 35-40 percent weight	10,000-gallon tank	3,000 gallons	2	165 gallons
Pine Oil	25,000-gallon tank	6,150 gallons	4.5	900 gallons
Flomin D-910 (depressant)	20,000-gallon tank	22 tons per truck	1	750 pounds
Sodium Meta-Silicate	75-ton dry bulk silo	22 tons	11	7.5 tons
Sodium Meta-Silicate Mix Tank	25,000-gallon tank	-	-	5,000 gallons
Sodium Meta Silicate Distribution Tank	25,000-gallon tank	-	-	5,000 gallons
Witconate 90	200-pound fiber drums	96 drums per truck	2	1,250 pounds
Witconate 90 distribution tank	3,000-gallon tank	-	-	5,000 gallons
Antiscalant	7,000-gallon tank	5,000 gallons	1	120 gallons
Flocculent	1,650-pound supersacks	24 supersacks per truck	2	1,800 pounds
Flocculent mix tank	15,000-gallon tank	-	-	135,000 gallons

Reagent	Storage	Amount/ Delivery	Trucks/ Month	Approximate Consumption per Day
Flocculent distribution tanks	Two 25,000-gallon tanks	-	-	135,000 gallons
Iron oxide	60-ton dispensing bin	20 tons	6	3.9 tons
FerroSilicon (50 percent)	60-ton dispensing bin	20 tons	12	7.7 tons
Aluminum	30-ton dispensing bin	20 tons	1	0.7 tons
CaAlumina	30-ton dispensing bin	20 tons	0.5	0.3 tons

[1] No deliveries associated with these tanks. They are mix and distribution tanks only.

A portable fuel storage and dispensing system may be used in the pit at the later stages of pit life to shorten the distance mine equipment would have to travel to fuel. This system would contain diesel fuel and gasoline tanks in secondary containment and a diesel powered generator to power the dispensing units. The system would be emptied and moved periodically by trailer as needed.

Lubricants and antifreeze would be managed and stored in the area as required by the MSHA and other state and federal regulations. Lesser quantities of solvents, paints, and other materials would be stored at the truck shop and managed in the same manner.

2.1.11.2 Reagents and Chemicals

Most reagent tanks would be located outside of the mill building in secondary containment as shown on Figure 2.1.8. Mix and distribution tanks for the sodium metasilicate, Witconate 90, and the flocculant would be located indoors near the mill in secondary containment. Other reagents include sodium carbonate, sodium hydroxide, ammonia, flocculants, and antiscalant.

Secondary containment would be sized to contain 110 percent of the volume of the largest tank or tanks in series. Spills would be handled according to state and federal regulations. Spills would report to a sump, the contents of which could be pumped back into a tank or into the process. Outdoor tanks and lines would be insulated and heat traced as necessary to protect against temperature changes. Ferric chloride, ammonium hydroxide, and hydrochloric acid would be stored adjacent to the ferric chloride leach facility in secondary containment with the capacity to contain 110 percent of the largest tank. The ammonium hydroxide would be stored in an area separate from the ferric chloride and hydrochloric acid. The floors would be concrete and covered with a sealant to prevent discharge to the environment. Spills would report to separate sumps, the contents of which could be pumped back into the tanks or returned to the process. Spills would be handled according to state and federal regulations. Table 2.1-5 presents the reagents that would be used, the volumes that would be stored on site, and the number of shipments anticipated per month. These estimates may vary depending on the metallurgical conditions encountered during operations. EML may elect to substitute reagents with similar chemical compositions for those listed if greater flotation recovery or more efficient gas scrubbing can be realized.

Reagents used in the analytical and metallurgical test procedures would be stored at the laboratory and generally include small quantities of nitric acid, sulfuric acid (**H_2SO_4**), hydrochloric acid, hydrofluoric acid, and sodium hydroxide. Small quantities of other reagents may be used periodically. Lab sinks would be designated either as an "acid" sink or a "base" sink. These sinks would drain to tanks within containment. The tank contents would be neutralized on a regular basis. The neutralized waste would be disposed in accordance with applicable regulatory requirements.

2.1.11.3 Waste Disposal Management

Used lubricants and solvents would be characterized according to the Resource Conservation and Recovery Act (RCRA) requirements and would be stored appropriately. EML has obtained a Hazardous Waste Identification Number from the Environmental Protection Agency (EPA). The mine is expected to be in the "conditionally exempt small quantity generator" category as defined by the EPA. Used solvents are the only identified potential hazardous wastes at this time. EML would institute a waste management plan that would identify the wastes generated at the site and their appropriate means of disposal.

Used oil and coolant would also be stored at the maintenance building and truck shop in secondary containment. The materials would be either recycled or disposed of in accordance with state and federal regulations. Used containers would be disposed of or recycled according to federal, state, and local regulations.

Solid waste generated by the mine and process departments would be collected in dumpsters near the point of generation. Industrial solid waste would be disposed of in an on-site Class III landfill in accordance with NAC 444.731 through 444.737. A training program would be implemented to inform employees of their responsibilities in proper waste disposal procedures.

The Class III landfill would be located near the edge of the southern portion of the Non-PAG WRDF, as shown on Figures 2.1.1 and 2.1.3. A trench would be excavated parallel to and at a safe distance from the face of the advancing toe of the WRDF. The advancing WRDF would eventually cover the trench, which would be replaced by other trenches in sequence. When the waste rock storage lift has reached its extent, trenches would be excavated in the subsequent lifts.

EML would have a trained response team at the site 24 hours per day to manage potential spills of regulated materials at the site. Response for transportation-related releases of regulated materials bound for the site would be the responsibility of the local and regional agencies. However, where appropriate, EML may assist with response to off-site incidents, including providing resources, based on agency requests.

2.1.11.4 Explosives Handling

Explosive agents would be purchased, transported, stored, and used in accordance with the Department of Homeland Security; Bureau of Alcohol, Tobacco, and Firearms provisions; and MSHA regulations. The primary explosive used would be ANFO. Ammonium nitrate prill would be stored in a silo, while explosive agents, boosters, and blasting caps would all be stored within secured areas.